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THE PENNSYLVANIA STATE COLLEGE

Graduate School

Department of Home Economics

A STUDY OF THE DIETARY HABITS AND NUTRITIONAL STATUS OF
SCHOOL CHILDREN OF DIFFERENT NATIONAL AND RACIAL
BACKGROUNDS IN AN ANTHRACITE COAL REGION OF PENNSYLVANIA

A Thesis

by

Evelyn Hollen

Submitted in partial fulfilment of
the requirements for the degree of

MASTER OF SCIENCE

in

Home Economics

Approved:

Pauline Beechuck

Director of Ellen H. Richards Institute

Accepted:

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Director of Home Economics

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I N T R O D U C T I O N

It is generally agreed that the strength of any nation is dependent upon the physical well-being of its entire population, and that proper food selection is basic to physical well-being. The foods which people eat and their consequent nutritional status are determined by many factors, including racial and national customs, purchasing power, education, and personal likes and dislikes.

People of many national and racial backgrounds have found homes in the United States, and have brought with them as many traditional food habits as the parts of the globe which they represent. They have settled in many sections of this country, and their present food habits have been colored by their own socio-economic status and the availability of foods in the parts of the country which they represent. Nevertheless, old food habits have persisted, and nutrition workers, seeking to improve dietary standards, are constantly reminded of the fact that racial and national food habits must be considered if nutritional betterment is to be accomplished. Field workers in the Pennsylvania mass studies in human nutrition, for example, report the futility of attempting to uproot these traditional dietary practices in their entirety, even if the people concerned are told that their present diet is not adequate for optimum nutrition. Instead, the best results seem to come when an attempt is made to adjust food habits within the existing dietary pattern, rather than to lay down an arbitrary ideal for every person, regard-

less of his racial and national origin.

No extensive survey has been reported which shows what are the dietary habits which the people of foreign extraction have established for themselves under American conditions, nor have any studies been published on the nutritional status of such individuals as related to their food habits.

The purpose of this study, therefore, is to determine the following:

- (1) the food habits of children in an industrial region of Pennsylvania, coming from a wide variety of racial and national backgrounds;
- (2) the nutrients provided by this food; and
- (3) the nutritional status of the respective subjects.

Data concerning the children of foreign extraction (789 subjects) in the part of the Pennsylvania mass studies in human nutrition carried on in the Luzerne County anthracite region were taken as the basis of this investigation; these children represented twenty races or nationalities in which both the mother and father were of the same extraction, and eighty-nine mixed nationalities in which the father represented one and the mother another national background.

P L A N O F P R O C E D U R E

The study represented herein involved the analysis of data collected concerning children of foreign extraction who took part in the Pennsylvania mass studies in human nutrition in Luzerne County, Pennsylvania, in 1937 - 1939. It is a part of the long-time study in human nutrition begun in 1935 by staff members now in the Ellen H. Richards Institute at the Pennsylvania State College, for the purpose of finding the dietary habits and the nutritional status of persons of different ages and socio-economic types.

SUBJECTS

The subjects of the study were grade school children of Wilkes-Barre, Pennsylvania, a city of about 87,000 inhabitants which is in the heart of the anthracite coal mining region. The persons used in this part of the major study constituted a statistical sample of intermediate grade school children chosen so as to be representative of the income and racial-national backgrounds of the community as a whole.

In this particular analysis, the subjects were classified according to the nationality listing of the parents. A separate classification was made of all subjects having identical parental nationality. This gave twenty classifications in which both parents were of the same nationality and eighty-seven classifications in which the parental nationalities were mixed because of marriage. Only normal children without visible physical defects were used in this study.

The problem was undertaken in the following manner:

1. Dietary records of a week's food consumption were kept for each child.
2. A socio-economic rating of each home situation was made from surveys of the home situation through home visits by registered nurses.
3. A series of nutritional measurements and tests were made on each of the children in the study as follows:
 - (a) Physical examination for nutritional status.
 - (b) Measurements of body build.
 - (c) Determination of skeletal status.
 - (d) Determination of dental status.
 - (e) Calculations of slump.
 - (f) Measurement of plantar contact.
 - (g) Measurement of hemoglobin status.
 - (h) Tests for darkness adaptation response.
 - (i) Tests for capillary wall strength.

DIETARY RECORDS

A chart for recording the week's food consumption of each child was given to the mother or adult in the family responsible for the child's food, by a registered nurse during a home visit. The nurse gave the mother the following directions concerning the method for recording food:

1. Each meal should be recorded separately.
2. All food which the child eats should be recorded.

This includes sugar and cream in drinks, butter and jelly on

bread, and so forth. Foods eaten between meals should be reported by the child and recorded on the chart.

3. The measurement of the amount of each food eaten should be recorded beside the food item. This refers to number of slices of bread, teaspoons of butter or jelly, and cups or fractions of cups of vegetables and other foods.

4. This food record should show the child's typical food habits. No changes in the family's food pattern should be made just because a record is being kept.

These dietary record sheets were collected and analyzed for the average individual day's intake of calories, grams of protein, grams of calcium, grams of phosphorus, milligrams of iron, International Units of Vitamin A, International Units of thiamin hydrochloride, milligrams of ascorbic acid, and Sherman-Bourquin Units of riboflavin from food value tables found in Bowes and Church (2), Rose (9), and Sherman (11).

The average food consumption for the various age groups of children of both sexes was converted to unit man equivalents for a basis of comparison. This unit equivalent conversion showed the nutrients consumed--energy, proteins, calcium, phosphorus, iron, vitamin A, thiamin hydrochloride, ascorbic acid, and riboflavin--by the various children in terms of that required by a seventy-kilogram man of average height and moderate activity. The following is the table of conversion units taken from the Bureau of Home Economic standards used by Stiebeling and Phipard (12), which were used in this study.

UNIT MAN CONVERSION CHART

Sex & Age	Ener- gy	Pro- tein	Cal- ci- um	Phos- phor- us	Iron	Vitamins				
						A	B1	C	D	Ribo- flavin
Male or female under 4 yrs.	0.4	0.7	1.5	.8	.4	.75	.4	.7	-	.75
Male, 4-6 yrs.	0.5	0.8	1.5	.8	.5	.75	.5	.7	-	.75
Male, 7-8 yrs.	0.7	1.0	1.5	.8	.7	.90	.7	.7	-	.90
Male, 9-10 yrs.	0.8	1.1	1.5	.9	.8	.90	.8	.8	-	.90
Male, 11-12 yrs.	0.83	1.1	1.5	.9	.9	1.00	.83	.9	-	1.00
Male, 13, 15 yrs.	1.00	1.1	1.3	1.0	1.0	1.00	1.00	1.0	-	1.00
Male, 16-19 yrs.	1.20	1.1	1.3	1.0	1.0	1.00	1.20	1.2	-	1.00
Female, 4-7 yrs.	0.5	.8	1.5	.8	.5	.75	.50	.7	-	.75
Female, 8-10 yrs.	0.7	1.0	1.5	.8	.7	.9	.7	.7	-	.90
Female, 11-13 yrs.	0.8	1.1	1.5	.9	.8	.9	.8	.8	-	.9
Female, 14-19 yrs.	0.83	1.1	1.5	.9	.9	1.0	.83	.9	-	1.0

The dietary records were analyzed also for percentage distribution of food eaten by the children of each nationality. The servings were changed to grams and classified in the following food groupings: 1. milk, 2. cheese, 3. cream, 4. butter, 5. salt pork and bacon, 6. other fats, 7. potatoes, 8. sweet potatoes, 9. dried beans, peas, and nuts, 10. lettuce, 11. peppers, 12. spinach, 13. other green vegetables, 14. corn, 15. carrots, 16. other yellow vegetables except sweet potatoes, 17, other vegetables except tomatoes, 18. tomatoes, 19. citrus fruits, 20. dried fruits, 21. other fruits, 22. eggs, 23. muscle meats, 24. glandular organs, 25. poultry, 26. fish, 27. meat soup, 28. milk soup, 29. tomato soup, 30. whole wheat bread, 31. other bread and rolls, 32. cereals, 33. macaroni, spaghetti and noodles, 34. cakes and cookies, 35. pies, 36. other desserts, 37. sugar, 38. jam, 39. jellies, 40. honey, 41. syrup, 42. molasses, 43. candy, 44. soft drinks, 45. cod liver oil, 46. other vitamin supplements.

THE SOCIO-ECONOMIC RATING

The socio-economic rating of the child was based on the physical characteristics of the home, the family cash income, and the family education. This data was obtained by registered nurses associated with the study through house visits to each child's home and interviews with the mother or adult in the family. The scores used in evaluation of this data, described by Mack-Smith (6), are as follows:

1. Rating the Physical Home:

In devising an arbitrary 100-point system for grading a home as to its physical characteristics, the home was regarded as a place in which the family eats and sleeps, and in which there should be adequate provision for rest, recreation, the preparation and consumption of food, and group social life. The rating system used was intended to give credit to those features in the home which are believed to influence the general well-being of the family members, particularly as regards nutritional status. The data sheet used in making physical home evaluations is the following:

Size of House: (Number of Rooms _____) --12 points..... _____
(Note whether or not there are roomers, and how many _____)

Furniture:
10 points for entirely adequate furniture (in good condition) for the size of the house; number of points adjusted downward at discretion of grader; 6 points is the maximum to be given if furniture is adequate, but not in good condition..... _____

Cleanliness of Interior:
10 points if interior is immaculate in every detail; number of points to be adjusted downward at the discretion of the grader..... _____

Possession of a Central Heating Plant; --Maximum 10 points..... _____

Possession of Convenient Cooking Equipment: --Maximum 5 points..... _____

Possession of Satisfactory Refrigerator: --Maximum 5 points..... _____

Possession of a Worthwhile Musical Instrument: --Maximum 5 points..... _____

Ornamentation within the House: --Maximum 5 points..... _____

Provision for Rest:

For Child--Sleeps alone--8 points.....
 Sleeps with one other child--7 points.....
 Sleeps with one adult--6 points.....
 Sleeps with two other children--4 points.....
 Sleeps with two adults, or three other children--1
 point.....
 For Adult--Maximum 8 points, depending upon
 adequacy of provision for rest.....
 (Note: Each individual is rated, and the average taken
 as the rating of the home on this point.)
 Average.....

Exterior of House Well Kept: --Maximum 10 points.....

Provision for Recreation: --Maximum 10 points.....

Possession of Grass and Flowers: --Maximum 5 points...

Possession of Vegetable Garden: --Maximum 5 points....

TOTAL POINTS _____

Rating of Physical Home: _____

The following scale was used in classifying the physical homes according to their total rating:

Class A 100 - 86 points
 Class B 85 - 71 points
 Class C 70 - 51 points
 Class D 50 - 26 points
 Class E 25 or less points

2. Rating the Family Cash Income Level:

Family cash income is rated according to an arbitrary scale as follows:

Class A-1, \$10,000 or above
 A-2, 7,500 to 9,999, inclusive
 A-3, 5,000 to 7,499, inclusive
 Class B-1, 4,000 to 4,999, inclusive
 B-2, 3,000 to 3,999, inclusive
 B-3, 2,500 to 2,999, inclusive

Class C-1, 2,000 to 2,499, inclusive
C-2, 1,500 to 1,999, inclusive
C-3, 1,000 to 1,499, inclusive

Class D, Incomes below \$1,000.00, exclusive of families on direct relief.

Class E, Income of families on direct relief alone.

3. Rating the Family Education:

The educational level of a family is rated arbitrarily according to the education of adult members, which are defined to include all persons of 19 years of age or over, except those who are still continuing their education. The rating scale is as follows:

Class A-1, All adults college graduates--one or more with a doctor's degree.

Class A-2, All adults college graduates--one or more with a master's degree.

Class A-3, All adults college graduates with at least a bachelor's degree.

Class B-1, One member a college graduate with a degree.

Class B-2, All adults some special training beyond high school.

Class B-3, One adult some special training beyond high school.

Class C, All adults high school graduates.

Class D, One or more adults a high school graduate.

Class E, No adult a high school graduate

This rating system was intended to give credit to those features in the home which are believed to influence the general well-being of the family members, particularly with respect to nutritional status. A complete description of

technique for determining grade is given by Sanders (10).

The nationalities of the subjects were ascertained as far back as the parents of the children studied. Individuals were recorded as American if their parents were born here in America if more than two nationality lineages were given to the interviewer.

DESCRIPTION OF NUTRITIONAL TESTS METHODS

Physical Examination for Nutritional Status

A physical examination is one of the earliest methods of determining the nutritional status of an individual when given by a skilled medical doctor. This rating presents general evidence of the nutritional well-being of a person as judged by the condition of the skin, pallor, posture, musculature, skeletal firmness, and evidence of the presence or absence of fatigue. The method is highly subjective, however, and is believed to be more valuable when used in conjunction with more objective tests. The rating scheme is based on a total of 100 points for appearance of optimal nutritional status. The following scheme is used to rate subjects as to their nutritional status by physical examination:

Name..... Case Number.....

Skin: Good (3); Intermediate (2-1); Markedly poor (0) _____

Pallor:None (5); Intermediate (4-1); Marked (0) _____

Subcutaneous Tissue: Adequate (5)
 { }slightly above adequate (4-1); { }markedly above adequate (0)
 { }slightly below adequate (4-1); { }markedly below adequate (0)
 _____

Musculature: Adequate (5); Intermediate (4-1); Very poor (0)
 _____

Posture: Head--Erect (5); Intermediate (4-1);
 Markedly forward (0) _____

Shoulders--Straight (5); Intermediate (4-1);
 Markedly curved (0) _____

Spine--Straight (5); Intermediate (4-1);
 Markedly curved (0) _____

Abdomen--Flat (5); Intermediate (4-1);
 Very prominent (0) _____

Legs--Straight (5)
 { } slightly bowed (4-1) { } badly bowed (0)
 { } slightly knock-kneed (4-1) { } badly knock-kneed (0)
 _____

Plantar Contact: Good (3); Intermediate (2-1);
 Markedly poor (0) _____

Skeletal Status; Well-boned (15); Intermediate (4-1);
 poorly boned (0) _____

Evidence of Presence or Absence of Fatigue:
 Eye Luster--Bright (3); Intermediate (2-1); Dull (0)
 _____

Expression of Face--Vivacious (5); Intermediate (4-1);
 Serious and drawn (0) _____

Teeth: Score Resulting from Dental Examination (10)... _____

Mouth: Soft Tissues--Good (3); Slight inflammation (2-1);
 Marked inflammation (0).... _____

Hair: Full of luster (3); Intermediate (1); Lacking
 Vitality (0)..... _____

Nervous Habits: Absence of nervous traits (5); such as
 nail biting, muscle twitching (4-1).
 Presence of apparent nervous disorders
 (describe)..... _____

Appearance of Mental Alertness: Dull (10); Intermediate
 (9-1); Bull (0)..... _____

The following scale was used to classify the subjects
 on the basis of physical examination:

Class 1 85 - 100 points
 Class 2 70 - 84 points
 Class 3 55 - 69 points
 Class 4 40 - 54 points
 Class 5 39 or less points

Measurements of Body Build

A trained technician measured each child for the 26 body measurements taken of all subjects in human nutrition studies carried out at the Pennsylvania State College as described in Mack and Smith (6). The subjects were weighed after shoes, outdoor wraps, and heavy outer clothing were removed. All outer garments and as much as the underwear as is necessary for locating landmarks were removed before the measurements were taken.

From these 26 measurements, 16 indices of body build were calculated, as listed by Mack and Smith (6).

In this study the Pryor standard was applied as the scale for ascertaining whether or not the weight of a child followed the norms for a considerable number of children of the same sex, height, and hip width.

The following scale was used for classifying the subjects according to their Pryor rating:

Class 1	.....	Normal \pm 10%
Class 2a	.....	11 - 15% underweight
2b	.....	11 - 15% overweight
Class 3a	.....	16 - 20% underweight
3b	.....	16 - 20% overweight
Class 4a	.....	21 - 25% underweight
4b	.....	21 - 25% overweight
Class 5a	.....	26% and more underweight
5b	.....	26% and more overweight

Determination of Skeletal Status

Roentgenogram Method. The stage of maturity of the skeleton of the child and the degree of mineralization of the bones were determined by the use of roentgenograms. Calcium, phosphorus, protein, and vitamin D all contribute to the status of the human skeleton. The roentgenogram is not a specific test for the lack of any one dietary factor, but it gives a composite picture of all the contributing factors in their relation to bone growth.

The progress of maturation in each child was judged by comparing the roentgenograms of such parts as the hand, elbow, foot, and knee with standards. The chronological age was compared with the skeletal maturation age as judged by the standards set up by Todd (14). The following scale was used for skeletal maturity:

Class 1	Same as chronological age and above, or 6 months retarded
Class 2	6.1 - 9 months retarded
Class 3	9.1 - 12 months retarded
Class 4	12.1 - 18 months retarded
Class 5	18.1 months and over

In obtaining further information about skeletal status, the mineral density was also taken into consideration. A child may reach a maturation status compatible with his chronological age, and yet his degree of mineralization may not be satisfactory. The degree of mineralization in this study was determined by a microphotometer, rebuilt from a

Type B Moll recording instrument as described by Mack and Smith (6). The following rating scale was used for mineral density:

MINERAL DENSITY CLASSES

Males

AGE	5	4	3	2	1
0 - 2	below 0.1800	0.1801 - 0.4500	0.4501 - 0.6000	0.6001 - 0.8500	above 0.8500
2 - 4	below 0.3500	0.3501 - 0.5500	0.5501 - 0.7000	0.7001 - 1.0000	above 1.0000
4 - 6	below 0.5000	0.5001 - 0.7000	0.7001 - 0.9000	0.9001 - 1.2000	above 1.2000
6 - 8	below 0.8000	0.8001 - 0.9000	0.9001 - 1.0000	1.0001 - 1.2000	above 1.2000
8 - 10	below 0.8500	0.8501 - 0.9500	0.9501 - 1.2000	1.2001 - 1.6000	above 1.6000
10 - 12	below 1.1000	1.1001 - 1.5000	1.5001 - 1.8000	1.8001 - 2.5000	above 2.5000
12 - 14	below 1.1800	1.1801 - 1.6000	1.6001 - 1.9000	1.9001 - 2.6000	above 2.6000
14 - 16	below 1.2000	1.2001 - 1.7000	1.7001 - 2.0000	2.0001 - 2.8000	above 2.8000
16 - 18	below 1.8000	1.8001 - 2.6000	2.6001 - 2.8000	2.8001 - 3.0000	above 3.0000
18 - 20	below 1.9000	1.9001 - 2.7000	2.7001 - 2.9000	2.9001 - 3.3000	above 3.3000
over 20	below 1.9000	1.9001 - 2.7000	2.7001 - 2.9000	2.9000 - 3.5000	above 3.5000

MINERAL DENSITY CLASSES

Females

AGE	5	4	3	2	1
0 - 2	below 0.1800	0.1801 - 0.4500	0.4501 - 0.6500	0.6501 - 0.8500	above 0.8500
2 - 4	below 0.3500	0.3501 - 0.5500	0.5501 - 0.7000	0.7001 - 1.0000	above 1.0000
4 - 6	below 0.5000	0.5001 - 0.7000	0.7001 - 0.9000	0.9001 - 1.2000	above 1.2000
6 - 8	below 0.8000	0.8001 - 0.9000	0.9001 - 1.0000	1.0001 - 1.2000	above 1.2000
8 - 10	below 0.8500	0.8501 - 0.9500	0.9501 - 1.2000	1.2001 - 1.6000	above 1.6000
10 - 12	below 1.1200	1.1201 - 1.5000	1.5001 - 1.8000	1.8001 - 2.0000	above 2.0000
12 - 14	below 1.5000	1.5001 - 1.9900	1.9901 - 2.2000	2.2001 - 2.4000	above 2.4000
14 - 16	below 1.5000	1.5001 - 1.9900	1.9901 - 2.4000	2.4001 - 2.7500	above 2.7500
16 - 18	below 1.5000	1.5001 - 1.9900	1.9901 - 2.5000	2.5001 - 2.7500	above 2.7500
18 - 20	below 1.5000	1.5001 - 1.9900	1.9901 - 2.5000	2.5001 - 2.7500	above 2.7500
over 20	below 1.5000	1.5001 - 1.9900	1.9901 - 2.5000	2.5001 - 3.0000	above 3.0000

Dental Examination for Caries

A doctor of dental surgery made a complete record of the mouth of each subject of the study. The report was checked on the Bosworth Service Form No. 2. All previous fillings and all unfilled cavities were noted on the chart. Abnormal conditions of the mouth were recorded. Deciduous teeth and the extent of caries were noted. The general condition of the soft tissues was rated according to a simple scale and described.

The mouth was scored on the basis of an arbitrary 10-point score according to the extent of caries present as indicated by the mouth examination.

Class 1	9 - 10 points
Class 2	7 - 8 points
Class 3	5 - 6 points
Class 4	3 - 4 points
Class 5	1 - 2 points

Calculation of Slump

Slump was calculated as the percentage loss in changing from a horizontal to a standing position, and from a sitting to a stem end position. Standing slump was the percentage loss in standing height and sitting slump was the percentage loss in sitting height. Slump is believed to be associated in some manner with muscle tonus, although the data are not yet sufficient to be conclusive.

Arbitrary Rating Score for Classification of Subjects

$\frac{\text{Horizontal Height} - \text{Standing Height}}{\text{Horizontal Height}} \times 100 = \text{percentage slump in standing}$

$\frac{\text{Stem end} - \text{Sitting height}}{\text{Stem end}} \times 100 = \text{percentage slump in sitting}$

Class 1 0 - 1.99%

Class 2 2 - 3.99%

Class 3 4 - 5.99%

Class 4 6 - 7.99%

Class 5 8 - 10.00%

Measurement of Plantar Contact

Plantar contact was calculated as the ratio between the percentage of the sole of the foot touching a smooth surface when the child was standing and when he was sitting according to the formula:

$$\text{ratio} = \frac{\text{standing percent}}{\text{sitting percent}}$$

The degree of plantar contact when the subject was sitting was also calculated. This was the average percentage of the area of the soles of the two feet touching a smooth surface taken when the subject was in a sitting position.

There is some indication of a relationship between a subject's Plantar contact and his past nutritional history, although the data collected are not yet sufficient in number to be conclusive.

Plantar Contact Rating Score

Class 1 1.09 and under

Class 2 1.10 - 1.14

Class 3 1.15 - 1.19
Class 4 1.20 - 1.24
Class 5 1.25 and over

Plantar Contact Average Percentage of Sitting Feet Touching

Class 1 0 - 69.99
Class 2 70 - 77.99
Class 3 78 - 85.99
Class 4 86 - 92.99
Class 5 93 - 100.00

Measurement of Hemoglobin Status

The standard Newcomer method was used to determine the amount of hemoglobin in the blood in terms of grams of hemoglobin per 100 cc of blood.

The subjects were classified by the following rating score:

Class 1 13.0 grams/100 cc and above
Class 2 12.99 - 11.5
Class 3 11.49 - 10.0
Class 4 9.99 - 7.5
Class 5 7.49 grams/100 cc and below

Measurement of Vitamin A Status

Each subject was given the optical test for dark adaptation using the biophotometer. This test is based upon the conceded fact that retarded dark adaptation in a human subject is distinct avitaminosis, and that hemeralopia is one of the first indications of vitamin A deficiency. The

explanation of this has been found to lie in the fact that there is a chemical relationship between the vitamin A available in the body and the visual purple in the retina, and that the ability to regenerate this pigment after light bleaching is associated with the amount of vitamin A supplied to the eye by the blood stream.

The method of conducting this test is outlined by Mack and Smith (6).

The bright light factor is the minimum number of millifoot candles of light intensity required by the subject to detect the center dot of the quincunx, or the end-point in the biophotometer after the exposure of the subject to the standard light source in the instrument for 5 minutes, following a 10 minute initial period in darkness. In general, the procedure of the tests has the following steps:

1. Test the subject immediately upon entry to a dark room to acquaint him with the instrument.
2. Test after 10 minutes in darkness.
3. After subject has looked at a standard bright light for 5 minutes, the test is given 20 to 25 seconds after the bright light has been turned off.
4. Test $2\frac{1}{2}$ minutes after bright light.
5. Test 5 minutes after bright light.
6. Test $7\frac{1}{2}$ minutes after bright light.
7. Test 10 minutes after bright light.

The total integration factor represents in one value or

index a summation of the responses of tests number 2, 3, 4, 5, 6, and 7. Since the bright light factor has been deemed to be the most significant, the rating scale is based upon it.

Bright Light Factor Rating Scale

Class 1 0.00 - 0.30 millifoot candles
 Class 2 0.31 - 0.60 millifoot candles
 Class 3 0.61 - 1.09 millifoot candles
 Class 4 1.10 - 3.59 millifoot candles
 Class 5 3.60 millifoot candles and above

Measurement of Vitamin C Status

The capillary wall fragility test, using Logan's method (4), by means of a Dalldorf resistometer was used on each subject. In this test, described by Mack and Smith (6), the areas in the cubital fossa region of the left arm are tested one at a time until the least negative pressure is reached, which, for a sustained period of one minute, will produce a 4+ hemorrhage. A 4+ break is a complete hemorrhage of the area covered by the vacuum cup of this instrument.

The rating for classification of the subjects is based on the following score:

Class 1 no break 55.60 cm
 1+ break 55.60 cm
 Class 2 2+ or 3+ break at 50, 55, and 60 cm
 Class 3 4+ break at 50, 55, and 60 cm
 Class 4 3+ or 4+ break at 40 and 45 cm
 Class 5 4+ break at 30 and 45 cm

P R E S E N T A T I O N O F D A T A

The data on nutritional status and the consumption of nutrients and of foods, as compiled in the study, are presented in tabular and graphic forms as follows:

Table I - Socio-Economic Rating and Nutritional Status of Children According to Racial and National Background..... Pages 30 - 40.

The following concerning the subjects of the study are included in this table: 1. sex, 2. age, 3. income, 4. education, 5. physical home, 6. physical examination by visual inspection, the rating and class, 7. dental examination for caries, the rating and class, 8. hemoglobin, the average and class, 9. plantar contact, classes a and b, 10. percentage loss of height during sitting and standing, 11. Pryor weight status and class, 12. biophotometer response to bright light, total integration, and class, 13. capillary wall resistance class, 14. maturity Todd standard comparison of chronological age and class, and 15. mineral density class.

Table II - Summary of Socio-Economic Background and Nutritional Status of Major Racial-National Groups.

Table III - Nutrient Intake of Children According to Racial and National Background..... Pages 42 - 52.

The following concerning the subjects of the study are included in this table: 1. energy, 2. protein, 3. fat, 4. carbohydrate, 5.

calcium, 6. phosphorus, 7. iron, 8. vitamin A, 9. thiamin, 10. ascorbic acid, and 11. riboflavin.

Table IV - Summary of Nutrient Intake of Children of Major Racial and National Background Groups.

Table V -- Intake of Major Food Groups and Sub-groups by Children of Different Racial and National Backgrounds..... Pages 54 - 75.

The following concerning the subjects of the study are included in this table: 1. milk, 2. potatoes, 3. tomatoes and citrus fruits, 4. green, leafy, and yellow vegetables, 5. dried beans, peas, and nuts, 6. dried fruits, 7. other vegetables and fruits, 8. lean meat, poultry, and fish, 9. flour, baked goods, and assorted cereals, 10. fatty goods, 11. sugars, and 12. miscellaneous. These in turn are broken down to show the individual daily consumption of forty-six separate food items.

Table VI - Summary of Intake of Major Food Groups and Sub-groups by Children of Different Racial and National Background..... Pages 76 - 77

Figure 1 - Average family income of major racial and national background groups.

Figure 2 - Average family education of major racial and national background groups.

Figure 3 - Average physical home rating of major racial and national background groups.

Figure 4 - Average physical examination rating of major racial and national background groups.

Figure 5 - Average physical examination class of major racial and national background groups.

Figure 6 - Average dental examination rating of major racial and national background groups.

Figure 7 - Average dental examination class of major racial and national background groups.

Figure 8 - Average hemoglobin of major racial and national background groups.

Figure 9 - Average hemoglobin class of major racial and national background groups.

Figure 10 - Average sitting plantar class of major racial and background groups.

Figure 11 - Average standing plantar class of major racial and national background groups.

Figure 12 - Average slump during standing class of major racial and national background groups.

Figure 13 - Average slump during sitting class of major racial and national background groups.

Figure 14 - Average Pryor weight status of major racial and national background groups.

Figure 15 - Average biophotometer bright light test of major racial and national background groups.

Figure 16 - Average biophotometer total integration of major racial and national background groups.

Figure 17 - Average biophotometer class of major racial and national background groups.

- Figure 18 - Average capillary wall resistance class of major racial and national background groups.
- Figure 19 - Average maturity age by Todd standards of major racial and national background groups.
- Figure 20 - Average maturity age class of major racial and national background groups.
- Figure 21 - Average mineral density class of major racial and national background groups.
- Figure 22 - Average intake of energy-giving foods by major racial and national background groups.
- Figure 23 - Average intake of protein by major racial and national background groups.
- Figure 24 - Average intake of fat by major racial and national background groups.
- Figure 25 - Average intake of carbohydrate by major racial and national background groups.
- Figure 26 - Average intake of calcium by major racial and national background groups.
- Figure 27 - Average intake of phosphorus by major racial and national background groups.
- Figure 28 - Average intake of iron by major racial and national background groups.
- Figure 29 - Average intake of vitamin A by major racial and national background groups.
- Figure 30 - Average intake of thiamin hydrochloride by major racial and national background groups.

- Figure 31 - Average intake of ascorbic acid by major racial and national background groups.
- Figure 32 - Average intake of riboflavin by major racial and national background groups.
- Figure 33 - Average intake of milk and milk products (except butter) by major racial and national background groups.
- Figure 34 - Average intake of potatoes and sweet potatoes by major racial and national background groups.
- Figure 35 - Average intake of tomatoes and citrus fruit by major racial and national background groups.
- Figure 36 - Average intake of green, leafy, and yellow vegetables by major racial and national background groups.
- Figure 37 - Average intake of dried beans, peas and nuts by major racial and national background groups.
- Figure 38 - Average intake of other vegetables and fruits by major racial and national background groups.
- Figure 39 - Average intake of eggs by major racial and national background groups.
- Figure 40 - Average intake of lean meat, poultry, and fish by major racial and national background groups.
- Figure 41 - Average intake of flour, baked goods, and assorted cereals by major racial and national background groups.

Figure 42 - Average intake of fatty foods by major racial and national background groups.

Figure 43 - Average intake of sugar by major racial and national background groups.

Figure 44 - Average intake of vitamin supplements by major racial and national background groups.

Figure 45 - Average intake of twelve major food groups by major racial and national background groups.

TABLE I - SOCIO-ECONOMIC RATING AND NUTRITIONAL STATUS OF
CHILDREN ACCORDING TO RACIAL AND NATIONAL BACKGROUND

Case Number	Sex	Chron. Age	Socio-Economic Rating		Physical Rating by Medical Examination		Dental examination for caries	Hemoglobin		Plantar Contact		Percentage Loss of Height during		Weight Status	Biophotometer		Capillary wall resistance	Maturity (Todd Standards)		Mineral Density			
			Im-	Sub-	Home	Rating		Class	Average	Class	Class (a)	Class (b)	Standing Class		Sitting Class	Bright Light		Total Integr.	Class		Class	Comparison with Chron. age-months	Class
W-1	M	10-6-7	D	E	73	79	2	6	3	12.37	2	2	1	4	-8.3	1	0.9200	1.7826	3	1	+33.0	1	3
W-2	F	11-10-23	D	D	A 84	82	2	7	2	12.37	2	3	2	1	-0.7	1	1.1600	1.9011	4	1	-13.0	4	2
W-3	F	12-2-17	D	D	C 66	85	2	7	2	14.10	1	1	1	1	-5.8	1	0.4220	0.6245	2	1	+18.5	1	2
W-4	F	10-10-4	C3	E	A 94	74	2	3	4	13.80	1	1	2	1	0	1	0.1700	0.4258	1	1	+5.0	1	3
W-5	F	10-5-26	C3	E	A 91	77	2	4	4	14.18	1	2	2	1	-12.1	2a	2.1400	4.0034	4	1	-3.5	1	2
W-6	F	10-10-5	E	E	B 78	81	2	6	3	13.80	1	1	1	1	+9.5	1	1.8400	3.0767	4	1	-27.5	5	3
W-7	F	9-10-1	E	E	C 66	77	2	7	2	12.66	2	1	1	1	-2.8	1	0.6900	1.7773	3	1	-17.5	4	2
W-8	F	9-5-5	C3	E	B 72	84	2	6	3	12.96	2	2	2	1	+7.8	1	0.3140	0.6507	2	1	-32.5	5	3
W-9	F	10-5-0	D	D	C 69	82	2	7	2	12.77	2	3	2	1	+3.1	1	0.7300	1.4705	3	1	+19.0	1	3
W-10	F	10-5-0	D	D	C 69	82	2	7	2	12.77	2	3	2	1	-5.9	1	0.7300	1.2701	3	1	-17.5	4	5
W-11	F	10-5-0	D	D	C 59	78	2	7	2	13.54	1	1	1	1	-5.1	1	1.4600	2.7681	4	1	-18.5	5	3
W-12	F	11-2-25	D	E	C 65	75	2	3	4	12.82	2	3	3	1	+8.3	1	0.3260	0.6200	2	1	-19.0	1	4
W-13	F	10-10-8	C3	E	A 94	82	2	5	3	12.25	2	1	1	2	+23.8	4b	1.0700	1.8007	3	1	-6.5	2	3
W-14	F	11-5-21	D	E	C 66	77	2	7	2	15.06	1	3	1	1	+3.7	1	1.2500	2.3323	4	1	-8.5	2	3
W-15	F	11-2-28	D	E	A 91	75	2	6	3	15.06	1	3	1	1	-5.2	1	1.0700	1.7446	3	2	0	1	5
W-16	F	12-11-6	D	E	B 71	83	2	6	3	13.58	1	3	1	1	+3.2	1	0.5800	0.6451	2	2	-8.0	2	1
W-17	F	12-0-2	E	E	A 91	85	2	6	3	15.88	1	4	1	1	-8.5	1	0.5320	1.3770	3	1	+11.0	3	5
W-18	F	14-10-28	E	E	C 59	81	2	6	3	12.57	2	4	1	1	+2.0	1	1.9300	3.5767	4	0	-11.0	3	5
W-19	F	14-10-28	E	E	C 59	81	2	6	3	12.38	2	4	1	1	+1.9	1	0.3960	0.6541	2	1	-6.5	2	5
W-20	F	12-8-2	C3	E	B 75	83	2	9	1	11.53	2	2	1	1	+7.8	1	0.5800	1.1192	2	1	-37.0	5	5
W-21	F	11-9-13	D	E	A 90	83	2	8	2	12.64	2	4	1	1	+2.2	1	1.3500	2.7706	4	1	-21.0	5	4
W-22	F	10-1-13	D	E	A 94	82	2	6	3	15.21	1	1	1	2	+20.1	3b	1.3500	2.7706	4	1	+4.1	1	5
W-23	F	12-4-6	C2	E	A 97	78	2	8	2	15.12	1	1	2	1	-18.3	3a	0.6360	1.1305	2	1	+3.5	1	4
W-24	F	14-3-29	C2	D	A 89	86	1	9	1	15.31	1	2	2	2	+9.0	1	1.1600	2.1034	4	1	-2.0	1	1
W-25	F	12-8-19	C3	E	A 94	80	2	7	2	13.22	1	3	1	1	+0.1	1	0.4980	0.9734	2	1	-1.5	1	1
W-26	F	11-5-28	C3	E	A 93	82	2	7	2	14.63	1	1	2	1	-4.0	1	1.4600	2.6013	4	1	+22.0	1	2
W-27	F	11-5-28	D	E	A 90	81	2	7	2	13.65	1	2	1	1	+8.6	1	1.4600	2.4580	4	1	+14.5	1	1
W-28	F	12-11-10	D	E	A 91	85	1	6	3	14.16	1	4	1	1	-1.1	1	0.8320	1.3323	3	1	+3.0	1	3
W-29	F	11-0-10	C1	D	A 94	85	1	7	2	12.88	2	1	2	1	+5.2	1	0.8200	1.6933	3	1	+12.5	1	3
W-30	F	11-4-11	C3	D	B 72	80	2	8	2	12.03	2	5	2	1	-2.9	1	0.9200	1.8933	3	1	+19.5	1	3
W-31	F	10-1-1	E	E	B 75	79	2	8	2	12.03	2	5	2	1	+10.8	1	0.9900	1.8484	3	1	-11.0	3	5
W-32	F	10-1-1	D	E	B 75	79	2	8	2	14.88	1	1	3	1	+3.5	1	1.4600	3.0736	4	1	-27.0	5	1
W-33	F	10-1-1	C3	E	B 75	79	2	8	2	11.60	2	3	1	1	+3.8	1	0.4980	0.9469	2	1	-15.5	4	5
W-34	F	13-7-27	C3	E	B 75	84	2	6	3	12.03	3	5	1	1	-3.8	1	0.8320	1.3344	3	1	+19.0	1	5
W-35	F	9-1-2	C3	E	A 90	77	2	7	2	12.10	2	1	1	1	+3.7	1	1.5800	1.8336	4	1	+2.0	1	3
W-36	F	8-8-14	D	D	B 80	83	2	8	2	13.15	1	1	1	1	-8.4	1	5.3600	9.5947	5	1	-13.0	4	2
W-37	F	10-7-29	D	E	B 75	82	2	7	2	13.63	1	1	1	1	+28.7	5b	1.3500	2.2073	4	1	-3.5	1	2
W-38	F	11-7-14	E	E	C 69	79	2	6	3	14.18	1	1	1	1	+16.5	3b	4.2800	7.0635	5	1	-3.5	1	2
W-39	F	9-11-15	E	E	C 69	79	2	6	3	14.18	1	1	1	1	+0.7	1	1.7000	3.6286	4	1	-14.0	4	5
W-40	F	10-10-21	C	E	A 89	73	2	3	4	14.62	1	2	1	1	+8.1	1	0.5200	1.4575	3	1	-8.5	2	3
W-41	F	10-10-6	C1	D	A 86	76	2	6	3	12.63	2	3	2	1	+17.8	3b	0.9200	1.8875	3	1	+18.0	1	1
W-42	F	10-10-6	C1	D	A 86	80	2	7	2	12.50	2	3	1	1	+21.8	4b	0.7300	1.2290	3	1	-1.0	1	3
W-43	F	10-10-6	C1	D	A 86	80	2	7	2	11.49	3	4	1	1	+16.7	3b	0.9900	1.6185	3	1	-17.0	4	5
W-44	F	10-10-6	C1	D	A 86	84	2	6	3	12.90	2	3	1	1	+3.5	1	1.8400	3.3299	4	1	-9.0	2	5
W-45	F	10-10-6	C1	D	A 86	84	2	6	3	13.15	1	1	1	1	+24.5	4b	1.1600	2.6387	4	1	-9.0	2	5
W-46	F	11-2-4	C2	E	A 88	81	2	7	2	12.70	2	2	1	1	+7.8	1	1.1600	2.0090	4	1	-16.0	4	5
W-47	F	9-8-26	C2	E	A 89	76	2	7	2	13.15	1	1	1	1	+9.9	1	0.7900	1.6571	3	2	+2.0	1	5
W-48	F	12-1-19	C3	E	A 94	82	2	5	3	11.97	2	3	2	1	+13.7	2b	0.2500	0.5911	1	2	-17.5	4	3
W-49	F	9-11-11	C2	A3	A 88	85	2	6	3	12.65	2	1	5	1	-7.9	1	1.2500	2.2283	4	1	+7.0	1	1
W-50	F	10-12-17	C2	D	B 85	80	2	8	2	12.65	2	1	1	1	+20.5	5	0.3400	0.6666	2	1	+4.0	1	5
W-51	F	12-6-19	C1	E	B 85	84	2	6	3	12.25	2	1	1	1	+7.4	1	0.5100	1.1206	2	1	0	1	2
W-52	F	9-9-15	C1	E	B 85	82	2	6	3	14.35	1	4	1	1	+27.4	5b	0.6600	0.6244	2	1	+0.5	1	4
W-53	F	10-10-16	C2	E	B 85	82	2	6	3	13.59	1	1	1	1	+9.3	1	0.3960	0.7610	2	1	-7.0	2	5
W-54	F	10-10-22	C	E	B 85	82	2	6	3	12.80	2	1	2	1	+7.8	1	0.7900	1.4609	3	1	-7.5	3	4
W-55	F	1																					

TABLE I - Continued

English

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status		Biophotometer		Capillary wall resistance	Maturity (Todd Standards)		Mineral Density		
			Income	Education	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Standing Class	Sitting Class	Prior	Class	Bright Light	Total Integr.		Class	Class			
WB-351	M	10-6-4	C1	D	A 98	76	2	5	3	13.09	1	3	1	1	1	1	+20.2	3b	2.3200	4.3276	4	1	+ 3.0	1	2
WB-356	M	11-5-28	D	E	C 69	80	2	8	2	14.31	1	1	1	1	1	1	+ 5.0	1	0.6760	1.2389	3	1	-23.5	5	4
WB-403	F	9-11-23	B	B1	A 93	76	2	8	2	12.56	2	1	1	1	1	1	+28.0	5b	2.5000	5.0206	4	1	+ 9.5	1	3
WB-404	M	10-7-25	C3	C	A 88	83	2	8	3	13.40	1	1	1	1	1	1	+19.8	3b	0.5800	0.9947	2	1	+ 5.5	1	4
WB-422	F	10-1-5	B	E	C 68	75	2	6	3	12.32	2	2	1	1	1	1	+22.4	4b	1.1600	2.0972	4	1	- 7.0	2	2
WB-434	F	10-1-5	B	E	A 80	78	2	7	2	14.12	1	1	1	1	1	1	+ 1.2	1	0.5360	0.9852	2	2	+ 0.5	1	4
WB-444	M	11-4-6	C2	B2	A 87	76	2	7	2	13.37	1	1	1	1	1	1	+ 7.0	1	1.9800	3.1950	4	1	-19.0	5	3
WB-514	M	11-7-11	C1	E	B 85	77	2	7	2	13.08	1	1	1	1	1	1	- 4.4	1	1.3500	2.4394	4	1	-12.5	4	4
WB-556	F	10-3-15	C2	E	A 89	77	2	4	4	14.43	1	1	1	1	1	1	+13.1	2b	1.4800	2.4071	4	1	- 8.0	2	4
WB-595	F	10-1-1	C	C	A 88	76	2	7	2	14.35	1	1	1	1	1	1	+10.9	1	0.9200	1.7000	3	1	-11.0	3	4
WB-598	F	10-3-9	C	C	A 88	81	2	7	2	13.43	1	1	1	1	1	1	+14.5	2b	0.5360	1.1648	2	1	-18.0	4	3
WB-721	F	10-10-13	C	B3	A 90	84	2	8	2	13.65	1	1	1	1	1	1	+ 8.5	1	1.4600	2.6204	4	1	- 5.5	1	4
WB-724	F	10-7-16	C2	D	A 93	76	2	4	4	13.50	1	1	1	1	1	1	+ 2.4	1	2.1400	4.1309	4	1	- 5.5	1	3
WB-728	M	10-2-7	C3	B1	A 96	76	2	7	2	13.40	1	1	1	1	1	1	+ 6.7	1	1.7000	3.0763	4	2	-11.5	1	4
WB-731	M	11-10-21	E	E	A 97	82	2	8	2	12.99	2	1	1	1	1	1	+ 2.3	1	1.0700	1.9788	3	1	-10.5	3	3
WB-735	M	10-10-23	C3	E	A 89	74	2	4	4	14.95	2	2	3	1	4	1	+12.5	2b	2.5000	4.4608	4	1	-15.0	4	2
WB-743	M	10-3-24	D	D	A 88	85	1	7	2	12.44	2	1	2	1	1	1	+25.2	4b	0.5360	1.0216	2	1	-10.5	3	3
WB-744	M	10-10-8	C3	E	A 87	72	2	4	4	14.95	1	1	1	1	1	1	- 2.0	1	0.3400	0.5769	2	1	- 2.5	1	3
WB-758	M	11-7-16	D	E	B 74	83	2	10	1	12.92	2	3	2	1	2	1	+ 6.2	1	1.1600	2.1332	4	1	+14.0	1	3
WB-759	M	10-2-10	D	E	C 87	77	2	6	3	12.21	2	1	2	1	1	1	+15.0	3b	2.5000	4.4608	4	1	-26.0	1	3
WB-855	F	10-4-3	C3	E	A 89	82	2	8	2	13.04	1	1	1	1	1	1	+ 6.7	1	1.5400	3.4392	4	1	- 5.5	2	4
WB-859	F	11-5-18	D	E	B 81	77	2	7	2	11.91	2	1	2	1	1	1	+18.2	3b	1.5800	3.1100	4	1	-19.5	5	4
WB-865	M	10-10-18	D	E	D 37	68	3	8	2	14.28	1	1	2	1	1	1	+12.5	2b	1.3600	2.2976	4	1	-22.5	5	4
WB-888	F	11-4-3	C1	B3	A 90	77	2	7	2	13.65	1	1	1	1	1	1	+ 0.9	1	1.5800	2.8328	4	2	- 5.5	1	5
WB-890	M	10-5-15	B	D	A 95	87	1	9	1	12.95	2	1	3	1	3	1	+11.8	2b	0.9200	1.5471	3	1	+18.0	1	4
WB-898	M	11-5-6	C2	C	B 84	86	1	8	3	13.23	1	1	1	1	1	1	+10.3	1	0.3140	0.5063	2	1	- 8.5	1	2
WB-897	F	10-10-29	D	E	B 84	86	1	8	3	13.23	1	1	1	1	1	1	+10.3	1	1.5800	2.8328	4	1	- 8.5	1	2
WB-901	F	9-11-13	D	D	B 84	86	1	7	2	13.22	1	1	1	1	1	1	+13.4	2b	1.0700	2.2351	3	1	- 3.5	1	2
WB-922	F	9-10-7	C	C	A 93	86	1	7	2	13.97	1	1	1	1	1	1	+21.3	4b	0.9200	1.5949	3	1	+ 8.0	1	3
Averages 29 cases					85	79	2	7	2	13.38	1	2	2	1	2	1	+11.8	2b	1.3302	2.4202	4	1	- 4.5	2	3

German

WB-34	F	10-8-8	C3	D	A 93	76	2	7	2	11.64	2	1	2	2	3	- 4.8	1	0.5360	0.9576	2	1	- 6.0	1	4
WB-41	M	11-1-23	C2	E	B 71	76	2	7	2	14.03	1	1	4	2	1	+18.5	3b	1.0700	1.9250	3	1	- 7.0	2	4
WB-556	M	11-3-5	D	E	C 68	77	2	4	4	13.44	1	1	1	1	1	+ 3.3	1	0.9900	1.7849	3	2	- 6.0	1	4
WB-560	F	10-7-8	C3	E	B 78	80	2	7	2	13.37	1	1	1	1	1	+28.9	5b	0.9200	1.6357	3	1	-17.0	4	5
WB-567	M	10-1-13	D	E	B 74	76	2	6	3	13.15	1	1	1	1	1	+21.5	4b	0.6760	1.2343	3	2	+ 5.0	1	3
WB-579	F	10-4-6	C2	E	C 65	82	2	8	2	14.15	1	1	1	1	1	+10.2	1	0.6760	1.2356	3	1	+ 5.0	1	4
WB-597	F	10-1-20	D	E	A 87	80	2	8	2	13.10	1	1	2	1	1	+14.4	2b	0.7900	1.5024	3	1	- 0.5	1	3
WB-598	M	10-8-13	C2	E	A 87	70	2	6	3	11.96	2	3	3	1	1	+18.3	3b	1.9800	3.2581	4	1	- 4.0	1	3
WB-592	M	9-11-28	C1	C	A 91	78	2	9	1	13.65	1	2	1	1	1	+ 0.7	1	1.9800	3.3591	4	1	+31.0	1	1
WB-605	F	9-10-26	C1	D	A 91	77	2	8	3	13.25	1	1	3	1	1	+21.1	4b	1.0700	1.8886	3	1	- 0.5	1	2
WB-617	F	11-6-14	E	D	B 76	80	2	7	2	14.34	1	1	1	1	3	+ 4.3	1	1.4600	3.1891	4	1	-21.0	5	3
WB-636	F	10-7-2	C4	E	A 90	79	2	6	3	13.02	1	1	1	1	1	+ 2.4	1	0.7800	1.5027	3	1	- 1.5	1	3
WB-638	F	10-7-2	C4	E	A 89	79	2	9	1	13.95	1	1	1	2	1	+ 9.8	1	0.7300	1.2839	3	1	- 1.0	1	4
WB-643	M	11-9-28	C3	E	C 64	88	3	6	3	12.60	2	1	2	1	1	- 2.9	1	0.7300	1.4082	3	1	+ 0.0	1	5
WB-655	F	9-10-19	C3	E	B 85	73	2	6	3	13.37	1	1	3	1	1	+15.0	2b	1.3500	2.7833	4	1	-31.5	5	1
WB-654	F	10-10-30	C3	E	B 80	83	2	6	3	13.72	1	1	1	1	1	+16.3	3b	1.2500	3.3465	4	2	+19.0	1	1
WB-658	F	10-1-1	D	E	B 85	82	2	5	3	13.29	1	2	1	1	1	+17.5	3b	1.2500	2.7966	4	1	+ 1.5	1	3
WB-660	M	10-10-1	D	E	A 90	79	2	7	2	13.50	1	1	3	1	1	+13.2	2b	0.7800	2.0850	3	1	- 4.0	1	4
WB-669	M	11-7-26	C3	B1	A 91	80	2	8	2	12.38	2	1	2	1	1	+22.1	4b	0.6760	1.2353	3	1	- 3.0	1	2
WB-730	M	10-1-15	C2	E	A 89	82	2	7	2	13.08	1	1	1	1	1	+15.6	2b	0.9800	2.0845	3	1	+ 5.0	1	4
WB-747	F	10-10-26	D	E	B 85	80	2	7	2	14.28	1	1	3	1	1	+ 7.5	1	1.1600	2.2496	4	1	+18.5	1	1
WB-755	M	10-7-14	D	E	B 80	84	2	10	1	14.51	1	1	1	1	1	+18.9	3b	1.2500	2.5954	4	1	+27.0	1	3
WB-759	F	10-1-13	C3	E	A 79	76	2	7	2	12.95	2	2	1	1	1	+ 5.7	1	1.1600	2.2419	4	1	- 4.0	1	3
WB-764	M	10-1-13	C2	E	A 87	76	2	7	2	13.63	1	1	1	1	1	+10.1	1	1.0700	1.9823	3	1	- 0.5	1	2
WB-787	F	10-1-25	D	E	C 64	86	3	1	5	14.18	1	1	1	1	1	- 2.3	1	2.5000	4.4608	4	1	+ 3.0	1	5
WB-793	M	10-1-25	D	E	C 64	78	2	7	2	13.43	1	1	1	1	1	-11.7	2a	0.9900	1.7996	3	1	+ 5.0	1	4
WB-794	M	11-3-31	C3	E	C 65	78	2	9	1	12.02	2	1	2	1	1	+ 9.9	1	0.8300	1.7782	3	1	-15.5	4	3
WB-800	F	10-10-16	C2	E	A 93	79	2	8	2	13.65	1	1	1	1	1	+14.8	2b	1.0700	1.9019	3	1	- 6.5	2	4
WB-815	F	10-1-1	C3	E	A 93	76	2	8	3	13.08	1	1	1	1	1	+ 0.5	1	0.9200	1.6667	3	1	-26.5	5	3
WB-823	F	10-11-19	C3	C	A 79	76	2	8	2	14.44	1	1	1	1	1	+30.4	3b	0.7800	1.5124	3	2	+ 1.0	1	4
WB-823	F	10-11-19	C3	C	A 93	76	2	7	2	12.60	2	1	1	1	1	+ 2.4	1	0.5360	1.0182	2	1	-15.5	4	5
WB-824	M	11-11-29	D	E	B 78	83	2	8	2	12.39	2	1	1	1	1	+14.6	2b	0.9200	1.9215	3	1	-18.0	4	2
WB-827	F	11-2-2	C3	E	C 64	84	3	4	4	14.20	1	1	1	1	1	-	1	0.5760	0.9889	2	1	-10.0	1	2
WB-783	M	11-2-6	D	E	C 87	80	1	1	7	13.72	1	1	2	1	1	+ 3.5	1	0.5660	0.7179	2	1	-10.0	3	1
Averages 34 cases										13.41	1	2	2	1	2	+10.1	2b	1.0281	1.9697	3	1	- 2.5	2	3

TABLE I - Continued

Irish (continued)

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status	Biophotometer		Capillary wall resistance	Maturity (Todd Standards)		Mineral Density		
			Income	Educational	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Standing Class	Sitting Class		Bright Light	Total Intergr.		Class	Class		Comparison with Chron. Age months	Class
WB710	F	10-9-6	C	D	A 93	80	2	6	3	14.96	1	1	1	1	3	+14.9	2b	0.9200	1.6471	3	1	- 4.0	1	5
WB720	F	10-5-0	C	D	A 88	82	2	7	2	14.58	1	2	2	1	2	+ 0.6	1	1.9900	3.8828	4	2	- 2.0	1	4
WB722	F	10-1-0	C2	B3	A 89	86	1	7	2	13.44	1	1	1	1	1	+15.5	2b	3.1400	5.3024	4	1	+ 14.0	1	4
WB732	M	11-5-26	C3	E	B 79	78	2	4	4	15.51	1	2	3	1	2	+ 8.6	1	1.1600	2.6586	4	1	- 12.5	4	2
WB738	M	10-5-13	D	E	B 80	84	2	9	1	13.44	1	1	3	1	2	+24.1	4b	0.3140	0.6594	2	1	+ 1.0	1	3
WB797	F	10-4-17	C1	E	A 93	86	1	7	2	13.15	1	3	1	1	3	- 2.5	1	0.9900	1.9538	3	1	+ 5.0	1	4
WB815	F	10-2-13	C2	E	B 73	81	2	7	2	14.95	1	1	2	1	1	+12.4	2b	0.7900	1.6012	3	1	- 1.5	1	4
WB828	M	11-2-15	E	E	B 74	79	2	7	2	14.13	1	1	1	1	2	+ 0.1	1	1.7000	4.9579	4	2	- 7.0	1	2
WB849	F	10-0-26	C3	E	A 88	86	1	8	2	13.45	1	1	1	1	3	+20.3	3b	1.9300	3.1259	4	1	+ 12.0	1	2
WB861	M	10-9-18	C2	E	A 93	79	2	8	2	13.44	1	1	2	1	3	+10.7	1	1.0700	2.0181	3	1	- 5.0	1	5
WB906	F	10-2-26	C2	D	B 75	81	2	8	2	13.95	1	1	4	1	2	+ 6.7	1	0.8760	1.3475	3	1	+ 7.0	1	2
WB912	M	10-0-18	C3	D	B 75	81	2	8	2	12.56	2	1	3	1	2	+ 6.7	1	2.5000	4.5750	4	2	- 11.0	3	3
WB913	F	11-7-28	C	E	B 82	75	2	7	2	12.64	2	2	1	1	3	+20.0	3b	1.7000	3.1407	4	1	- 2.0	1	3
WB919	M	10-2-14	D	E	B 82	75	2	7	2	12.38	2	3	1	1	3	+14.0	2b	2.7000	4.6588	4	1	- 2.5	1	3
WB933	F	10-6-17	C3	E	A 91	84	2	6	3	12.08	2	3	1	1	1	+16.4	3b	1.7000	3.0493	4	1	+ x	x	x
WB920	F	10-6-17	C3	E	B 71	82	2	6	3	12.20	2	2	2	1	4	+ 1.9	1	2.3200	5.8307	4	1	+ 6.5	1	1
WB912	M	10-9-23	C2	E	B 70	69	3	7	2	12.98	2	1	3	1	2	+ 2.0	1	1.1600	2.0832	4	1	- 4.5	1	5
WB958	F	10-9-23	C2	E	B 70	69	3	7	2	12.98	2	1	3	1	2	+ 2.0	1	5.3500	14.9500	5	1	- 8.0	2	5
WB141	M	10-11-14	D	E	A 92	78	2	8	3	14.19	1	1	2	2	3	- 4.2	1	0.7300	1.4273	3	x	- 10.5	3	4
WB170	M	8-9-10	D	E	A 94	78	2	8	3	12.89	2	1	1	1	3	- 5.3	1	0.9200	1.7403	3	1	+ 7.0	1	2
WB900	F	9-11-24	C2	E	B 71	89	1	5	3	12.56	2	1	1	1	4	- 3.8	1	0.7900	1.8816	3	1	- 7.5	2	2
WB946	M	10-11-12	C2	E	B 71	74	3	8	2	13.25	1	2	1	1	1	+30.7	5b	0.7500	1.3427	3	1	- 14.0	4	3
WB933	M	10-9-18	D	E	C 80	80	2	7	2	11.98	2	1	3	1	2	+ 9.3	1	2.1400	3.4955	4	1	- 2.0	1	4
WB922	M	10-3-27	D	E	B 83	74	3	7	2	13.50	1	1	3	1	3	+ 4.7	1	1.1500	2.1340	4	1	+ 11.0	3	2
WB934	M	10-1-17	C2	E	A 87	85	1	10	1	13.99	1	4	1	1	3	+11.7	2b	1.4600	2.7234	4	1	- 5.5	1	4
WB938	M	10-9-5	C3	E	C 61	78	2	8	2	14.26	1	1	2	1	3	+17.2	3b	1.8400	3.3191	4	1	- 23.0	5	5
WB983	M	10-0-11	D	E	C 53	77	2	6	3	13.52	1	1	1	1	2	+19.2	3b	0.5550	1.5751	3	1	- 25.5	5	4
Averages - 65 cases					79	80	2	7	2	13.42	1	2	2	1	3	+1.9	2b	1.4269	2.6824	4	1	- 3.4	2	3
Italian																								
WB-20	F	11-7-16	C2	E	C 57	79	2	6	3	13.75	1	3	1	2	5	+ 1.3	1	1.0700	1.8087	3	1	- 19.5	5	4
WB-31	F	11-7-20	C3	E	A 88	80	2	6	3	11.53	2	1	4	1	5	+11.4	2b	0.1500	0.2982	1	1	+ 8.0	1	4
WB-32	F	10-5-24	D	E	C 62	59	3	5	3	12.85	2	1	3	1	5	- 5.8	1	1.0700	1.8213	3	1	- 10.0	3	2
WB-35	F	11-11-5	C2	E	C 62	74	2	6	3	13.78	1	1	2	1	5	- 8.6	1	0.4200	0.6656	2	1	- 22.5	5	2
WB-50	F	10-10-4	D	E	A 85	78	2	6	3	13.75	1	1	2	1	5	- 0.2	1	0.9900	2.0832	4	1	- 18.5	5	4
WB-54	M	11-8-18	E	E	C 56	75	2	5	3	12.70	2	1	3	1	1	+12.3	2b	0.8200	0.8656	2	1	- 15.5	5	2
WB-66	F	12-0-7	D	E	A 90	71	2	5	3	15.49	1	1	3	1	2	+ 0.6	1	2.3200	4.3008	4	1	+ 1.0	1	4
WB-90	M	11-10-29	C2	E	B 83	79	2	7	2	15.31	1	1	3	1	2	+ 6.9	1	3.9600	6.4366	5	1	+ 15.0	1	2
WB-96	M	10-10-13	D	E	A 86	70	2	8	2	11.48	3	1	3	1	2	+ 1.6	1	0.8800	0.9498	2	1	+ 0.5	1	3
WB103	F	11-2-5	D	E	C 64	77	2	6	3	13.51	1	1	2	1	4	- 1.6	1	1.7000	3.4384	4	1	+ 16.0	1	1
WB105	M	12-0-22	C	E	B 73	73	2	6	3	14.36	1	1	3	1	4	- 5.4	1	0.8500	1.3684	3	1	- 3.5	1	1
WB108	F	13-0-11	C3	E	A 93	74	2	8	2	14.27	1	1	4	1	1	- 8.2	1	0.8500	1.4390	3	1	- 19.0	5	5
WB124	F	11-10-26	C3	E	A 87	79	2	6	3	11.40	2	1	3	1	2	+ 3.2	1	1.0700	2.7666	3	1	+ 16.5	1	1
WB129	F	10-6-10	C3	E	B 84	78	2	7	2	12.63	2	1	3	1	2	+ 1.4	1	0.7300	1.2608	3	2	- 13.5	4	3
WB130	F	11-1-2	C3	E	A 87	79	2	5	3	10.32	2	1	3	1	4	- 1.4	1	0.7000	4.0020	4	1	- 13.5	4	2
WB140	M	13-11-28	C	E	B 75	81	2	4	4	11.80	2	1	3	1	4	- 0.2	1	0.7300	1.1797	3	1	- 3.5	1	1
WB177	M	9-9-4	C3	E	B 83	80	2	7	2	10.44	3	1	2	1	5	- 5.7	1	1.7000	2.8147	4	1	- 4.5	1	5
WB178	M	11-6-0	E	E	A 93	72	2	4	4	12.43	2	1	2	1	5	- 2.3	1	1.8800	2.7820	4	1	- 8.5	2	4
WB179	F	15-4-6	C3	E	A 87	82	2	4	4	13.45	1	1	1	1	4	+10.3	1	1.7400	3.0401	4	1	- 7.5	2	4
WB184	M	12-0-3	E	E	B 84	81	2	4	4	12.75	2	1	3	1	4	- 4.2	1	0.8500	1.4767	3	1	- 9.5	1	1
WB208	F	11-11-28	C3	E	C 65	80	2	9	1	15.03	1	1	4	1	2	+30.0	5b	4.4600	9.5729	5	1	- 10.5	3	3
WB307	F	10-8-18	C3	E	B 84	75	2	8	2	15.17	1	1	4	1	2	+ 6.0	1	0.4200	0.8629	2				

TABLE I - Continued

(continued)

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status		Biopotometer		Capillary wall resistance	Maturity (Todd Standards)		Mineral Density		
			Income	Education	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Standing Class	Sitting Class	Pryor Class	Class	Bright Light	Total Inter.		Class	Class		Comparison with Chron. Age months	Class
436	F	10-1-17	C	C	B 84	84	2	8	2	13.95	1	2	3	1	3	1	3	0.6280	1.1323	3	1	+13.5	1	2	
437	F	10-6-5	C2	C	B 85	85	2	7	2	14.29	1	1	1	1	3	1	3	0.6280	1.1377	3	1	+7.5	1	2	
438	F	10-1-11	D	D	B 83	83	2	7	2	13.32	1	2	3	1	2	1	2	0.3560	0.7507	2	1	+4.0	1	2	
439	F	10-7-25	C1	E	B 84	84	1	9	1	13.56	1	2	3	1	4	1	4	0.3560	0.7184	2	1	+4.0	1	4	
440	F	10-1-16	C	E	B 77	81	2	9	1	14.18	1	1	5	1	3	1	3	1.7000	3.3041	4	2	+11.0	3	5	
441	F	10-6-11	B	E	A 89	87	1	7	2	13.88	1	1	1	1	3	1	3	2.5000	4.0894	4	1	+7.5	2	4	
442	F	8-10-4	C	E	B 77	77	2	5	3	14.02	1	4	2	1	2	1	2	0.5360	0.9895	2	1	+12.5	1	2	
443	F	10-4-14	B	E	B 83	86	1	9	1	13.08	1	1	2	1	4	1	4	0.7500	1.4244	3	1	+7.5	1	2	
444	F	11-1-5	B	E	A 87	81	2	8	2	13.65	1	1	3	1	2	1	2	0.7000	1.2808	3	1	+22.0	1	2	
445	F	10-0-22	C1	E	B 74	79	2	7	2	14.44	1	1	1	1	1	1	1	0.5360	1.0141	2	1	+3.5	1	2	
446	F	8-6-3	C2	E	A 94	80	2	8	2	13.53	1	1	1	1	5	1	5	4.2800	7.0434	5	1	+15.0	4	2	
447	F	14-6-24	C2	E	A 94	74	2	6	3	11.22	2	3	1	1	5	1	5	1.1800	1.1940	4	1	+1.0	1	3	
448	F	10-9-15	C3	D	B 71	87	1	8	2	14.35	1	2	3	2	3	1	3	1.1800	2.3224	4	1	+1.0	1	3	
449	F	11-0-2	D	E	C 67	85	1	9	1	13.50	1	4	1	1	3	1	3	0.7000	1.7161	3	1	+18.0	5	1	
Averages - 42 cases					84	82	2	8	2	13.71	1	2	2	1	3	1	3	+16.7	1.1140	1.9936	4	1	-1.0	1	3
Lithuanian																									
450	F	11-11-5	D	E	B 74	75	2	5	3	14.60	1	1	3	1	1	1	1	1.5800	2.9715	4	1	-34.5	5	2	
451	F	11-7-22	C2	E	A 97	70	2	3	4	13.44	1	2	3	1	4	1	4	1.0700	2.1000	3	1	+9.0	1	4	
452	F	9-10-1	D	E	C 63	81	2	5	3	12.25	2	1	2	1	3	1	3	0.3530	0.7979	2	1	+4.0	1	4	
453	F	11-10-20	D	E	C 66	71	2	2	5	12.30	2	1	3	1	2	1	2	0.3560	1.1017	2	1	+22.0	5	4	
454	F	9-11-3	C3	E	B 79	76	2	6	3	14.35	1	5	1	1	1	1	1	1.2400	3.2008	4	2	+3.5	1	4	
455	F	10-10-19	C2	E	A 93	73	2	6	3	12.90	2	2	1	1	1	1	1	0.8200	1.4828	3	2	+7.0	1	3	
456	F	10-7-6	D	E	B 79	81	2	6	3	12.22	2	1	1	1	2	1	2	0.4980	0.8612	2	2	+2.0	1	5	
457	F	10-10-19	C2	E	A 93	73	2	6	3	11.58	2	1	1	1	3	1	3	1.2500	2.6018	4	1	+4.5	1	3	
458	F	11-8-3	D	E	B 83	79	2	10	1	13.38	1	1	3	1	1	1	1	0.4000	0.8144	2	1	+14.0	1	2	
459	F	9-10-29	E	E	B 81	79	2	6	3	12.50	1	2	3	1	2	1	2	0.4700	1.1604	3	1	+17.0	1	2	
460	F	10-0-23	D	E	C 60	84	2	6	3	12.38	1	1	1	1	3	1	3	0.4200	0.7121	2	1	+13.5	1	1	
461	F	10-4-20	D	E	A 94	80	2	7	2	12.75	1	2	1	1	2	1	2	1.2000	2.3872	5	1	+13.5	4	5	
462	F	10-5-10	D	E	B 83	81	2	7	2	14.35	1	4	1	1	3	1	3	1.0700	1.8707	4	1	+7.5	1	4	
463	F	10-9-13	C3	E	B 71	71	2	5	3	12.32	2	1	2	1	3	1	3	0.4000	0.8393	2	1	+4.5	1	4	
464	F	10-6-22	D	E	C 54	74	2	6	3	12.73	2	1	2	1	3	1	3	0.5000	1.0800	2	1	+7.0	1	3	
465	F	11-1-2	D	E	B 71	81	2	6	3	12.57	2	1	3	1	3	1	3	0.4000	1.0400	2	1	+13.0	4	4	
466	F	9-11-20	C	E	A 85	79	2	7	2	13.17	1	1	1	1	1	1	1	0.4000	1.0400	2	1	+2.5	1	4	
467	F	11-4-10	E	E	B 83	77	2	7	2	13.75	1	1	3	1	3	1	3	1.0000	2.2500	4	1	+2.5	1	4	
468	F	10-11-21	D	E	B 83	73	2	7	2	12.82	2	1	1	1	3	1	3	0.4000	1.0700	3	1	+2.0	1	3	
469	F	10-2-17	C3	E	A 87	71	2	6	3	14.77	1	1	1	1	1	1	1	0.4000	1.0700	3	1	+6.0	1	4	
470	F	10-2-10	C2	E	B 83	77	2	7	2	12.57	2	1	1	1	1	1	1	0.5000	1.0700	4	1	+4.0	1	4	
471	F	10-7-9	C3	E	A 89	77	2	6	3	12.43	2	4	2	1	1	1	1	1.0000	2.0000	4	1	+9.0	1	4	
472	F	11-1-15	D	E	C 70	72	2	6	3	12.70	2	1	2	1	2	1	2	0.4000	1.0400	2	1	+14.0	4	3	
473	F	11-11-15	D	E	D 42	70	2	7	2	12.01	1	2	1	1	2	1	2	0.5000	1.0400	3	2	+10.0	1	3	
474	F	10-6-12	B3	E	B 85	80	2	8	2	12.70	2	1	2	1	1	1	1	1.0000	2.2500	4	1	+10.0	1	3	
475	F	12-1-10	C3	E	A 93	78	2	5	3	12.27	2	1	1	1	1	1	1	0.4000	0.8144	2	1	+5.0	1	4	
476	F	10-9-17	C3	E	A 84	69	3	6	3	12.20	2	1	3	1	5	1	5	1.0000	2.2500	4	1	+1.5	1	2	
Averages - 29 cases					79	76	2	6	3	13.09	1	2	2	1	2	1	2	+11.0	1.0000	2.3437	3	1	-2.1	2	2
Polish																									
478	F	9-6-4	C3	D	A 97	75	2	5	3	12.96	2	1	3	3	4	1	4	0.7500	1.4333	3	2	+2.0	1	2	
479	F	10-9-5	C3	D	C 69	82	2	4	4	12.70	2	5	1	1	4	1	4	0.6700	1.3113	3	1	+12.5	1	1	
480	F	11-11-29	C3	E	C 82	85	2	4	4	12.70	2	5	1	1	4	1	4	0.6700	1.3113	3	1	+11.0	3	2	
481	F	10-2-28	D	E	C 89	79	2	6	3	12.30	2	4	1	1	4	1	4	1.0000	2.0000	4	1	+17.0	4	2	
482	F	10-5-26	C3	E	C 81	77	2	6	3	12.80	2	1	3	1	1	1	1	1.0000	2.0000	4	1	+17.0	4	2	
483	F	10-11-17	D	E	C 59	80	2	6	3	12.05	1	4	1	1	3	1	3	0.4000	0.8144	2	1	+22.0	5	3	
484	F	10-6-3	D	E	B 71	80	2	7	2	11.01	2	5	1	1	2	1	2	0.4000	0.8144	2	1	+17.5	4	5	
485	F	10-5-7	C3	E	B 82	77	2	4	4	12.83	2	4	1	1	3	1	3	0.4000	0.8144	2	1	+3.5	1	5	
486	F	10-5-13	C3	E	B 83	79	2	6	3	13.97	1	1	3	1	2	1	2	0.4000	1.0400	3	1	+1.0	1	4	
487	F	10-7-15	C3	E	B 76	80	2	6	3	13.59	1	5	1	1	1	1	1	1.0000	2.0000	4	2	+1.0	1	5	
488	F	10-7-3	D	E	C 60	76	2	6	3	12.59	2	2	1	1	1	1	1	1.0000	2.0000	4	1	+13.0	4	3	
489	F	10-9-4	D	E	B 79	74	2	6	3	12.3															

TABLE I - Continued

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status	Biophotometer		Capillary wall resistance	Maturity (Todd Standards)		Mineral Density			
			In-come	Edu-cation	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Stand-ing Class	Sit-ting Class		Prior	Class		Bright Light	Total Integr.		Class	Class	
W243	F	10-1-23	C5	E	B 77	80	2	5	3	15.03	1	3	1	1	3	-28.4	5a	1.3500	2.7191	4	1	- 9.5	3	4	
W244	F	10-8-13	B	E	A 90	76	2	6	3	14.60	1	1	3	1	3	+10.5	1	1.9900	3.8901	4	1	- 5.0	1	4	
W245	F	12-7-24	C3	E	D 44	87	1	6	3	12.71	2	1	2	1	5	+27.5	5b	0.5360	0.9986	2	1	- 5.5	1	1	
W246	F	10-4-16	C2	E	B 74	82	2	5	3	15.44	1	1	1	1	3	+19.4	3b	1.2535	2.8231	4	1	- 5.5	1	3	
W247	M	11-9-7	C2	E	B 83	78	2	5	3	14.77	1	1	2	1	3	+15.9	2b	0.9900	1.7693	3	2	- 14.0	4	4	
W248	F	10-3-4	C	E	B 77	77	2	5	3	13.04	1	2	2	1	3	+ 7.3	1	0.7300	1.2861	3	1	- 7.5	2	4	
W249	M	10-8-27	D	E	C 87	84	2	6	3	12.95	2	1	1	1	2	+13.1	2b	0.7900	1.4332	3	2	+ 0	1	3	
W250	F	10-8-1	C3	E	B 84	78	2	7	2	12.50	2	2	1	1	2	- 2.3	1	0.3980	0.8624	2	1	- 3.0	1	4	
W251	F	12-4-22	C3	E	B 79	75	2	5	3	13.95	1	2	1	1	2	+16.2	3b	1.1600	1.9513	4	1	+ 15.0	1	3	
W252	F	10-6-28	D	E	B 81	70	2	8	2	14.11	1	1	2	1	1	+ 8.9	1	1.2500	6.9085	5	1	+ 4.0	1	4	
W253	F	12-4-25	D	E	C 58	70	2	1	6	13.16	1	3	1	1	1	+ 2.5	1	0.8260	1.1436	3	2	- 7.0	2	4	
W254	F	11-10-2	D	E	B 81	77	2	5	3	12.40	2	2	1	1	2	+ 8.9	1	1.4800	2.5418	4	1	- 13.0	4	3	
W255	F	10-8-25	D	E	A 86	74	2	5	3	13.36	1	3	1	1	2	+21.0	4b	0.3680	0.6848	2	1	- 2.0	1	1	
W256	F	11-0-28	E	E	C 58	82	2	7	2	14.35	1	5	1	1	1	+ 4.3	1	1.3500	2.1800	4	1	+ 1.0	1	1	
W257	F	10-2-15	C3	E	A 92	73	2	6	3	12.50	2	3	1	1	3	+ 9.2	1	0.1980	0.5361	1	1	- 6.5	2	3	
W258	F	10-5-25	D	E	A 90	72	2	9	1	11.22	3	2	2	1	2	-11.7	2a	1.0270	1.0270	3	1	+ 2.5	1	2	
W259	M	11-5-15	D	E	B 76	75	2	5	3	12.57	2	1	2	1	2	+ 4.1	1	1.7000	3.2705	4	1	+ 10.0	1	3	
W260	M	11-1-18	C2	E	B 73	76	2	5	3	11.97	2	3	2	1	1	+14.4	2b	1.1600	2.3111	4	2	+ 8.0	1	2	
W261	M	13-9-20	D	E	C 67	76	2	7	2	14.82	1	1	1	1	3	+ 0.5	1	1.0700	1.8181	3	2	- 24.0	5	4	
W262	F	10-1-8	C3	E	C 58	78	2	5	3	13.22	1	1	1	2	4	+16.5	3b	0.7900	1.3877	3	2	+ 3.5	1	3	
W263	F	10-6-20	C	D	B 71	69	3	8	2	14.20	1	2	1	1	1	+ 0.6	1	2.3200	4.3545	4	1	- 4.5	1	4	
W264	F	10-7-10	D	E	B 79	78	2	7	2	13.50	1	1	1	1	3	- 0.6	1	1.0700	1.9398	3	1	+ 2.0	1	5	
W265	M	12-8-29	D	E	C 62	68	3	5	3	13.03	1	2	1	1	3	+ 6.0	1	1.9300	3.1089	4	1	+ 4.5	1	4	
W266	M	11-1-2	D	E	C 62	63	3	4	4	13.87	1	1	2	1	2	+ 5.3	1	1.3500	2.2641	4	1	- 9.0	2	2	
W267	M	10-2-19	E	E	B 79	75	2	7	2	11.37	3	1	3	1	4	+ 3.3	1	2.1100	5.1898	4	1	- 21.5	5	3	
W268	F	11-0-2	D	E	B 85	80	2	6	3	13.58	1	2	1	2	5	- 7.0	1	1.3500	5.0700	4	1	+ 5.5	1	4	
W269	M	10-5-15	D	E	B 78	78	2	7	2	13.02	1	1	3	1	4	-11.5	2b	1.2500	2.0794	4	1	- 1.5	1	1	
W270	M	10-7-1	D	E	B 85	82	2	9	1	12.99	2	1	1	1	3	-13.4	2a	1.0700	1.7809	4	1	+ 12.5	1	5	
W271	M	10-6-19	D	E	B 77	79	2	7	2	14.60	1	2	2	1	1	+ 6.9	1	1.1800	1.9468	4	1	- 9.5	3	2	
W272	M	10-1-12	D	E	B 80	81	2	7	2	12.87	2	3	1	1	3	+ 7.4	1	0.7900	1.5636	3	2	+ 11.0	1	2	
Averages - 31 cases						75	76	2	6	3	13.30	1	2	1	1	3	+ 5.4	2b	1.2600	2.2967	4	1	- 2.3	2	3
Scotch																									
W273	F	11-2-0	D	E	B 82	82	2	7	2	13.57	1	1	2	1	2	+12.9	2b	1.0700	1.9044	3	1	- 0	1	5	
Serbian																									
W274	F	11-5-9	D	E	B 77	74	2	3	4	12.31	2	3	1	2	5	+12.4	2b	1.8400	2.0720	4	1	+ 1.0	1	1	
Slovak																									
W275	M	9-9-17	C2	D	C 69	80	2	7	2	13.10	1	2	3	2	4	- 3.3	1	0.4280	0.8897	2	1	+ 5.0	1	1	
W276	F	11-9-28	C3	E	B 84	77	2	5	3	12.66	2	2	1	1	3	- 7.1	1	1.4600	2.6098	4	1	- 5.5	2	4	
W277	F	11-0-4	C3	E	A 86	85	1	6	3	13.28	1	4	1	1	4	+14.4	2b	1.0700	1.8233	3	1	- 1.5	1	3	
W278	F	11-2-24	D	E	B 82	78	2	3	4	13.58	1	4	1	1	4	+ 1.8	1	1.7000	2.9832	4	1	+ 3.0	1	1	
W279	M	12-6-22	C3	E	C 63	75	2	6	3	14.85	1	1	2	1	2	+14.3	2b	0.6760	1.3432	3	1	- 12.0	3	1	
W280	M	13-1-11	C2	E	B 72	79	2	6	3	13.60	1	1	3	1	2	+15.3	5b	1.1600	1.9412	4	1	- 7.0	2	4	
W281	F	10-9-15	D	E	B 76	78	2	6	3	12.50	2	5	1	1	2	+ 6.0	1	1.9300	3.1089	4	1	- 4.5	1	3	
W282	M	10-1-11	D	E	B 77	75	2	6	3	12.25	2	3	2	1	2	+11.6	2b	2.7000	4.3670	4	1	- 0.5	1	4	
W283	F	10-6-2	D	E	D 45	82	2	7	2	13.58	1	3	1	1	1	+21.8	2b	2.7000	4.3670	4	1	- 0.5	1	4	
W284	F	11-2-17	D	E	B 82	81	2	8	2	13.22	1	5	1	1	2	+10.4	1	1.1600	1.9287	4	1	- 24.5	5	5	
W285	M	12-0-22	D	E	A 88	71	2	7	2	13.16	1	1	3	2	2	+17.7	3b	0.6760	1.1654	3	2	- 13.5	4	2	
W286	M	10-11-1	D	E	D 43	76	2	7	2	12.31	2	1	2	1	2	+13.9	2b	1.2500	2.4467	4	1	- 11.0	3	2	
W287	M	11-10-14	C2	E	B 81	76	2	5	3	14.77	1	1	3	1	1	+12.3	2b	1.5800	3.4655	4	1	- 3.0	1	3	
W288	F	10-10-7	D	E	B 78	78	2	7	2	13.88	1	1	3	1	3	+15.7	2b	1.1600	2.1377	4	1	- 1.0	1	3	
W289	F	9-11-10	C2	E	B 81	76	2	7	2	14.44	1	1	2	1	1	+ 7.8	1	0.8360	1.7801	3	1	+ 2.5	1	2	
W290	F	11-3-22	D	E	D 36	80	2	5	3	14.36	1	1	2	1	1	+14.9	2b	1.7000	3.6501	4	1	- 16.5	4	4	
W291	F	11-3-23	D	E	A 87	82	2	7	2	13.27	1	1	3	1	1	+ 7.2	1	0.6260	1.1539	3	1	- 7.5	2	2	
Averages - 17 cases						72	78	2	6	3	13.48	1	2	2	1	2	+13.0	2b	1.1905	2.1950	4	1	- 5.6	2	3
Swedish																									
W292	F	10-2-18	D	E	A 94	75	2	4	4	13.36	1	1	2	1	1	+24.7	4b	0.3400	0.6799	2	1	- 2.0	1	5	
Syrian																									
W293	M	10-4-21	B	C	B 79	72	2	7	2	13.50	1	3	3	1	1	+ 5.7	1	1.7000	3.1154	4	1	- 2.5	1	4	
W294	F	10-4-24	C3	E	C 68	81	2	8	2	14.04	1	1	2	1	4	+16.2	3b	1.1600	2.0420	4	2	+ 20.0	1	2	
W295	F	9-10-23	E	E	B 78																				

TABLE I - Continued

Case No.	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status		Biophotometer		Capillary wall resistance	Maturity (Todd Standards)		Mineral Density		
			Income	Education	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Standing Class	Sitting Class	Pryor Class	Class	Bright Light	Total Integr.		Class	Class		Comparison with Chron. Age months	Class
A 345	M	10-1-20	C3	E	A 89	75	2	8	2	13.43	1	4	1	1	1	+3.5	1	1.7000	2.6049	4	1	-16.5	4	5	
A 346	M	13-0-2	D	E	D 34	71	2	8	3	11.86	2	3	1	1	1	+2.1	1	1.7000	2.9308	4	1	-17.5	4	4	
A 347	F	10-4-13	C3	E	A 93	78	2	8	2	11.47	3	1	2	1	2	-4.9	1	1.4600	2.8562	4	1	-17.0	4	4	
A 348	F	10-11-19	E	E	A 94	73	2	4	4	14.54	1	1	2	1	3	-4.4	1	0.7900	1.5055	3	1	-10.0	3	4	
A 349	M	9-11-23	D	E	B 81	80	2	7	2	12.95	2	3	1	1	1	+5.5	1	0.3400	0.9555	2	2	-0.5	1	3	
A 350	M	11-1-28	D	E	B 75	79	2	7	2	12.95	2	1	1	1	2	+9.5	1	0.4700	1.2807	3	1	-22.5	5	4	
A 351	M	12-11-7	C3	E	C 65	70	2	6	3	12.50	2	1	2	1	2	+7.9	1	1.2500	2.3929	4	2	-16.0	4	4	
A 352	M	9-11-4	E	E	A 90	79	2	8	2	13.87	1	1	1	1	1	+12.0	2b	1.4600	2.3451	4	1	-1.5	1	1	
A 353	M	13-1-18	D	E	B 74	78	2	7	2	12.97	2	4	1	1	2	+7.9	1	1.0700	2.9872	3	2	-33.5	5	4	
A 354	M	10-1-3	C3	B3	B 72	74	2	5	3	13.81	1	1	1	1	3	-2.1	1	1.7000	3.2002	4	1	+2.0	1	4	
A 355	M	12-1-11	C3	D	C 70	74	2	5	3	12.95	2	1	1	1	2	+7.5	1	0.5900	1.2515	2	1	-17.5	4	3	
A 356	M	10-8-14	C2	E	A 94	82	2	8	2	14.22	1	1	2	1	2	+8.8	1	0.4700	1.2828	3	1	+8.5	1	3	
A 357	F	10-11-22	C2	B3	A 94	80	2	7	2	14.1E	1	1	2	1	2	+1.8	1	3.1400	5.6156	4	1	-2.0	1	3	
A 358	F	10-5-12	C3	D	C 69	79	2	5	3	12.57	2	1	2	1	3	-1.8	1	0.5300	0.9536	2	1	+3.5	1	3	
A 359	F	10-8-8	D	E	B 78	81	2	8	2	10.19	3	3	1	1	2	+22.5	4b	0.9200	1.424	3	1	+4.0	1	4	
A 360	M	10-4-14	C1	E	A 87	76	2	7	2	12.63	2	1	2	1	2	+5.8	1	1.2500	0.9068	4	1	+2.0	1	4	
A 361	F	10-11-28	C2	B3	A 94	81	2	7	2	13.59	1	2	1	1	1	+17.7	3b	0.9900	1.8239	3	1	-15.5	4	3	
Averages - 17 cases						80	77	2	7	2	12.98	2	2	1	1	2	+5.8	1b	1.1905	1.9773	3	1	-8.8	2	4
American-Austrian																									
A 315	M	10-5-18	D	E	B 80	74	2	5	3	14.20	1	5	1	1	2	+7.8	1	2.9100	4.8742	4	1	+2.0	1	4	
American-Dutch																									
A 326	M	10-10-1	C3	E	C 52	75	2	7	2	14.16	1	1	3	1	1	+6.5	1	1.8400	3.1753	4	2	-5.0	1	1	
American-English																									
A 312	F	13-0-22	C	E	A 90	79	2	8	2	14.27	1	1	1	1	1	+36.1	5b	0.4280	0.8637	2	2	-12.0	3	5	
A 313	F	12-11-21	D	E	B 75	72	2	5	3	14.28	1	3	1	1	2	+6.7	1	1.3500	2.8225	4	1	-16.5	4	5	
Averages - 2 cases						83	76	2	7	3	14.27	1	2	1	1	2	+21.4	3b	0.8890	1.6231	3	2	-14.3	4	5
American-German																									
A 352	F	9-9-19	D	D	B 80	83	2	6	3	13.22	1	1	3	1	3	+11.8	2b	2.5000	4.4337	4	1	+15.0	1	1	
American-Irish																									
A 354	M	12-4-25	C3	E	B 78	80	2	6	3	12.62	2	3	2	1	2	-11.3	2a	0.8530	1.8236	3	1	+5.0	1	2	
A 355	M	10-11-14	D	D	B 84	80	2	6	3	13.64	1	5	1	1	4	+4.5	1	1.6800	3.1299	4	2	-36.5	5	5	
Averages - 2 cases						81	80	2	6	3	13.13	2	4	2	1	3	-3.4	2a	1.4165	2.7403	4	2	-15.8	3	4
American-Negro																									
A 316	F	14-5-6	D	E	C 54	76	2	7	2	13.65	1	1	3	1	5	+10.7	1	0.7500	1.9616	3	1	-15.0	4	4	
A 317	F	11-11-14	D	E	C 53	83	2	9	1	12.63	2	2	2	2	5	-1.7	1	1.7000	5.1400	4	x	+3.5	1	1	
A 318	F	12-5-19	E	D	D 45	79	2	10	1	12.27	2	1	3	2	1	+20.8	3b	1.2500	2.4450	4	x	-23.0	5	1	
A 319	F	9-8-17	C3	D	C 58	76	2	7	2	13.59	1	2	4	1	5	+9.6	1	0.7900	2.1089	3	x	-6.5	2	1	
A 320	F	10-2-6	D	E	B 77	83	2	6	3	13.67	1	3	1	2	3	-3.3	1	0.9000	2.1119	3	x	+16.0	1	1	
A 321	M	11-4-8	D	E	B 75	81	2	8	2	11.80	2	1	2	1	3	-2.5	1	1.2500	2.1052	4	x	+8.0	1	1	
A 322	M	11-4-13	D	E	B 76	76	2	7	2	12.77	2	1	2	1	3	-12.1	2a	0.7500	1.4029	3	1	-3.5	3	2	
A 323	M	12-8-0	E	E	C 41	76	2	8	1	15.22	1	2	3	1	5	+6.5	1	0.4800	1.0354	2	x	-0.5	1	1	
A 324	M	10-2-3	D	C	A 95	83	2	10	1	12.91	2	1	3	1	2	+20.1	3b	0.8200	1.8225	3	1	+2.0	1	3	
A 325	M	10-8-16	C3	E	A 95	73	2	7	2	11.70	2	1	3	1	2	+0.1	1	3.1400	5.8011	4	x	-2.8	1	5	
A 326	M	11-3-21	D	E	C 63	80	2	8	2	11.85	2	1	3	1	3	+20.6	3b	0.8530	1.8517	3	1	-15.0	4	4	
A 327	F	10-12-26	E	E	C 53	84	2	10	1	12.37	2	1	3	2	5	+9.2	1	2.5000	4.2031	4	x	-15.5	4	4	
A 328	M	10-6-26	D	C	E 71	79	2	8	2	11.43	3	1	1	1	2	+6.4	1	1.7000	2.7660	4	x	-1.5	1	2	
A 329	F	14-4-11	E	D	D 46	84	2	10	1	13.25	1	3	2	1	3	+5.1	1	1.7000	2.0715	4	x	-15.5	5	1	
Averages - 14 cases						64	80	2	8	2	12.60	2	2	3	1	4	+6.1	-	1.2747	2.5452	3	1	-5.4	2	2
American-Polish																									
A 325	M	10-9-10	D	E	C 63	81	2	7	2	14.13	1	2	1	1	3	+14.6	2b	1.3500	2.9059	4	1	+16.0	1	1	
American-Slovak																									
A 322	F	9-10-1	D	E	A 92	74	2	7	2	13.15	1	1	3	1	3	+15.7	2b	0.7500	1.9321	3	1	-28.5	5	1	
American-Swedish																									
A 323	M	12-1-14	D	E	A 93	76	2	5	3	12.77	2	1	2	1	1	+6.5	1	1.4700	2.4300	4	1	-17.5	4	5	
A 324	M	10-4-4	D	B3	C 60	87	1	7	2	13.44	1	1	1	4	2	+17.1	3b	0.8530	1.7499	3	1	+3.5	1	3	
Averages - 2 cases						77	82	2	6	3	13.11	2	1	2	3	+11.8	2b	1.1585	2.0900	4	1	-7.0		4	
Austrian-Polish																									
A 325	F	11-3-2	D	E	C 65	77	2	7	2	14.75	1	1	1	1	2	+25.1	5b	0.7900	1.5335	3	1	+3.0	1	3	
Italian-Italian																									
A 326	F	10-11-23	E	E	C 54	77	2	6	3	13.43	1	2	2	1	3	+10.5	1	1.2500	2.2501	4	1	-6.5	2	2	
English-English																									
A 327	F	10-2-14	C	E	A 95	66	1	6	2	13.95	1	1	2	1	3	+21.4	4b	0.7500	1.4481	3	1	-2.0	1	4	
A 328	F	10-5-9	C3	E	B 82	79	2	8	2	14.10	1	3	1	2	3	-1.2	1	0.9900	1.9333	3	2	-2.5	1	4	
A 329	F	10-5-20	C	E	A 95	82	2	8	2	14.01	1	3	1	2	3	-1.2	1	0.9530	1.8151	3	1	+x	x	x	
A 330	F	10-0-2	C	E	B 82	70	2	5	3	12.70	2	1	1	1	3	+10.1	1	1.1500	2.6599	4	1	-18.0	4	4	
A 331	M	13-2-2	E	E	C 60	79	2	5	3	13.25	1	1	3	1	2	+12.5	2b	1.4400	3.1978	4	1	+6.0	1	2	
A 332	M	11-2-3	D	E	D 50	74	2	7	2	13.97	1	1	2	1	3	+5.0	1	1.4600	2.7560	4	1	+17.0	4	4	
A 333	M	10-4-24	C3	E	D 50	79	2	9	1	13.99	1	1	1	1	3	+10.3	1	2.9100	5.1156	4	1	+17.0	1	1	
Averages - 7 cases						72	78	2	7	2	13.74	1	2	2	1	3	+13.0	2b	1.4904	2.6205	4	1	-1.0	2	
English-English																									
A 334	F	11-11-12	D	E	D 42	80	2	5	3	13.08	1	1	1	2	5	+2.5	1	5.3900	9.9000	5	1	-6.0	1	4	
A 335	F	10-1-17	D	E	C 40	76	2	8	2	14.01	1	2	1	1	5	+3.4	1	0.4280	1.3349	3	1	-23.0	5	3	
A 336	F	10-0-20	D	E	A 85	81	2	8	2	14.27	1	5	1	1	1	+22.1	4b	0.4980	0.8484	2	2	+3.0	1	3	
A 337	F	10-4-24	F	E	C 67	77	2	8	2	15.21	1	1	3	1	2	+6.1	1	0.9200	1.6036	3	2	+11.5	1	3	
A 338	F	10-4-24	F	E	B 72	79	2	7	2	13.55	1	1	3	1	3	+4.4	1	1.3500	2.3050	4	1	+17.0	1	1	
Averages - 5 cases						62	79	2	7	2	13.75	1	2	2	1	3	+6.5	2b	1.7508	3.1846	3	1	-0.5	2	3</

TABLE I - Continued

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status	Biophotometer				Capillary wall resistance	Maturity (Todd Standards)		Mineral Density	
			In-come	Edu-cation	Home	Rat-ing	Class	Rat-ing	Class	Average	Class	Class (a)	Class (b)	Stand-ing Class	Sit-ting Class		Fryor	Class	Bright Light	Total Integr.		Class	Class		Comparison with Chron. Age months	Class	Class
W 308	F	10-2-5	C2	E	A 89	80	2	6	3	14.10	1	1	1	1	3	+ 1.8	1	2.1400	3.7141	4	1	- 6.0	1	4	
W 320	F	10-5-15	E	E	A 92	84	2	9	1	12.34	2	1	1	1	3	+ 4.8	1	0.4980	1.0061	2	1	+ 17.0	1	4	
W 390	F	15-2-27	C	E	A 88	74	2	3	4	10.88	3	1	1	1	1	+ 8.4	1	0.7900	1.3827	3	1	- 11.5	3	5	
W 341	M	11-0-21	D	E	D 48	82	2	7	2	13.28	1	4	2	1	3	+ 16.2	3b	1.7000	3.1569	4	1	- 18.0	4	2	
W 350	M	12-8-16	D	E	D 48	82	2	7	2	13.90	1	4	2	1	3	+ 7.0	1	1.1600	2.0882	4	1	- 17.0	4	4	
W 337	M	10-10-28	C2	E	B 77	86	3	7	2	14.35	1	2	1	2	3	- 0.5	1	0.8530	1.8156	3	1	- 22.0	5	5	
W 304	F	9-10-28	D	E	C 89	80	3	9	1	14.35	1	1	5	1	2	+ 10.4	1	0.9200	1.8732	3	2	- 17.0	4	1	
Averages - 7 cases						73	78	2	7	2	13.30	2	2	2	1	2	+ 7.0	1b	1.1516	2.0953	3	1	+ 10.6	3	4
Dutch-Italian																									
W 100	F	8-7-14	C3	E	B 82	81	2	6	3	12.44	2	4	2	1	3	+ 6.2	1	0.3660	0.7489	2	1	+ 2.0	1	1	
Dutch-Polish																									
W 1-5	M	12-4-12	C3	E	B 75	83	2	5	3	12.49	2	2	1	1	4	- 1.1	1	0.5800	1.0028	2	1	- 22.0	5	2	
Dutch-Scottish																									
W 348	F	10-11-22	E	D	C 89	88	1	8	2	15.07	1	1	1	1	3	+ 17.8	3b	2.5000	4.2222	4	1	- 12.5	4	5	
W 347	M	11-3-27	C2	E	B 74	83	2	7	2	11.37	3	1	1	1	4	+ 5.4	1	0.8360	1.0804	2	1	- 3.5	1	4	
Averages - 2 cases						72	86	2	8	2	12.67	2	1	1	1	4	+ 11.6	2b	1.5160	2.6513	3	1	- 8.0	3	5
Dutch-Welsh																									
W 169	F	8-1-9	D	E	B 78	83	2	7	2	14.69	1	1	2	1	5	- 7.6	1	1.2500	2.3588	4	1	- 15.5	4	3	
W 442	F	9-5-14	C2	D	A 95	81	2	6	3	13.02	1	2	1	1	2	+ 21.8	4b	1.7500	2.1856	4	1	+ 3.0	1	3	
W 443	F	9-5-14	C2	D	A 89	87	1	7	2	12.85	2	1	4	1	3	+ 31.8	5b	0.7800	1.2376	3	1	+ 3.0	1	2	
W 674	F	10-8-5	D	E	C 81	86	1	8	2	12.98	2	2	2	1	3	+ 3.4	5b	0.9200	1.6355	3	1	+ 2.0	1	5	
W 670	F	9-10-11	E	E	B 84	77	2	8	2	11.07	2	1	1	1	2	+ 4.6	1	0.9500	1.8378	3	1	+ 3.8	1	1	
W 682	F	10-3-19	D	D	A 89	79	2	6	3	13.22	1	1	1	1	2	+ 2.6	1	1.0700	0.0107	3	1	+ 27.0	1	4	
W 789	F	11-11-14	C1	E	C 85	76	2	8	2	13.22	1	1	2	1	1	+ 12.5	2b	1.8400	3.1305	4	2	- 11.5	3	1	
W 824	M	11-4-9	C	E	A 88	76	2	4	4	13.75	1	1	1	1	3	+ 11.9	2b	1.7000	2.8756	4	2	+ 17.0	1	4	
W 881	F	11-1-12	D	E	C 89	67	3	7	2	13.52	1	1	2	2	3	+ 7.1	1	1.6000	2.4155	4	1	- 4.0	1	1	
Averages - 9 cases						79	79	2	7	2	13.24	1	1	2	1	3	+ 9.9	3b	1.2611	1.9764	4	1	+ 2.7	1	3
English-Dutch																									
W 5-24	F	9-7-24	D	E	A 91	86	1	6	3	12.64	2	1	2	1	5	- 8.9	1	0.7900	1.2813	3	2	+ 0.5	1	3	
W 155	F	11-1-26	C3	E	C 83	84	2	9	1	13.01	1	1	2	1	5	+ 1.5	1	0.8530	1.6052	3	1	- 23.0	5	3	
W 896	F	9-3-1	C3	E	B 83	79	2	10	1	13.65	1	1	4	1	3	+ 15.4	2b	0.7800	1.5745	3	1	+ 9.0	1	3	
Averages - 3 cases						79	83	2	8	2	13.10	1	1	3	1	4	+ 3.0	1b	0.7910	1.4803	3	1	- 4.5	2	3
English-German																									
W 451	F	10-0-0	C	E	A 98	84	2	8	2	13.50	1	1	3	1	1	+ 46.7	5b	0.5800	1.0947	2	1	- 5.0	1	3	
W 734	M	10-11-25	C3	E	A 93	82	2	8	2	13.86	1	5	1	1	3	- 0.3	1	1.1600	2.2391	4	1	- 2.0	1	4	
W 749	M	9-9-4	C3	E	A 90	77	2	7	2	13.65	1	4	2	2	2	+ 16.0	3b	1.3500	2.4834	4	1	- 15.0	4	2	
W 781	M	10-7-12	C2	E	A 89	80	2	8	2	12.27	2	1	3	1	2	+ 20.4	3b	0.5360	0.8525	2	1	- 8.5	2	2	
W 795	F	9-11-21	D	B3	B 78	73	2	7	2	13.03	1	1	3	1	3	+ 3.0	1	1.4600	2.6853	4	2	- 13.0	4	2	
W 859	F	10-11-3	B3	E	B 78	82	2	7	2	13.81	1	1	1	1	1	+ 17.3	3b	1.1600	2.4482	4	1	+ 10.5	1	4	
W 860	F	10-1-5	C3	E	D 46	85	1	8	2	14.77	1	1	1	1	2	+ 12.0	2b	1.7000	3.1272	4	1	+ 14.5	1	4	
Averages - 7 cases						81	80	2	8	2	13.57	1	2	2	1	2	+ 16.4	3b	1.1351	2.1744	3	1	- 2.6	2	3
English-Irish																									
W 868	M	11-7-8	C3	E	A 93	81	2	7	2	13.16	1	1	2	1	4	+ 21.6	4b	0.6260	1.2072	3	1	- 13.5	4	3	
W 817	F	9-11-11	C2	D	A 94	84	2	5	3	12.02	2	1	1	1	3	+ 9.6	1	1.2500	2.1201	4	1	- 0.5	1	2	
W 875	M	14-8-13	D	E	C 82	83	2	10	1	15.85	1	1	3	1	3	+ 26.1	5b	3.4000	6.1410	4	1	+ 0.5	1	2	
W 816	F	12-10-7	D	E	C 82	84	2	7	2	13.87	1	1	3	1	2	+ 9.7	1	2.9100	4.8469	4	1	+ 7.0	1	1	
Averages - 4 cases						75	83	2	7	2	13.68	1	1	2	1	3	+ 16.8	3b	2.0465	3.5788	4	1	- 1.6	2	2
English-Jewish																									
W 408	M	10-0-14	C	E	A 86	74	2	7	2	14.12	1	5	1	1	1	- 5.6	1a	0.7900	1.4593	3	1	+ 3.0	1	3	
English-Welsh																									
W 135	M	12-1-19	B	E	A 91	84	2	6	3	15.85	1	1	3	1	5	+ 0.6	1	0.5360	0.9354	2	2	- 1.0	1	2	
W 113	F	13-0-12	D	E	B 77	76	2	5	3	13.95	1	1	4	2	5	+ 9.5	1	0.6530	1.5301	3	1	+ 17.5	1	4	
W 520	F	10-11-9	B	E	C 85	83	2	7	2	11.53	2	5	1	1	1	+ 10.7	1	0.2500	0.5314	1	2	- 27.0	5	4	
W 630	F	9-11-14	C	D	C 84	83	2	8	2	13.29	1	1	2	1	2	+ 10.7	1	2.3600	4.6597	4	1	+ 6.5	1	2	
W 632	F	10-6-5	C3	E	C 84	87	1	7	2	13.02	1	1	1	1	1	+ 11.3	2b	1.5900	3.0940	4	1	- 4.0	1	4	
W 671	F	11-3-20	D	E	A 88	72	2	5	3	13.29	1	1	1	1	3	+ 10.4	1	1.5400	5.9801	4	1	+ 10.5	1	3	
W 778	F	10-6-8	C2	E	A 90	77	2	6	3	13.95	1	2	2	1	2	+ 9.1	1	1.3500	2.2649	4	1	- 4.5	1	4	
W 812	M	11-1-26	C3	E	B 81	72	2	8	2	14.77	1	1	2	1	1	+ 1.3	1	0.5300	1.0739	2	1	- 0.5	1	2	
W 905	M	10-1-21	E	E	D 48	72	2	6	3	13.38	1	1	4	1	3	+ 11.8	2b	1.7000	2.7850	4	1	- 7.5	2	4	
W 499	M	11-3-28	E	D	A 91	71	2	4	4	14.95	1	1	1	1	3	+ 16.0	3b	0.9200	2.1200	3	1	- 8.0	2	3	
Averages - 10 cases						76	78	2	6	3	13.79	1	2	2	1	3	+ 9.1	1b	1.3229	2.4855	3	1	- 1.8	2	3
German-American																									
W 6147	F	10-11-13	C2	E	B 74	78	2	7	2	14.03	1	1	1	2	5	- 3.0	1	0.7900	1.2636	3	1	- 1.0	1	5	
W 645	F	12-7-17	D	E	B 73	84	2	7	2	14.04	1	5	1	1	2	+ 28.6	5b	1.5800	2.7811	4	2	- 17.0	4	1	
W 916	M	9-11-2	C	B3	A 96	81	2	8	2	13.08	1	1	1	1	2	+ 28.5	5b	1.0700	1.9301	3	1	- 24.5	5	1	
Averages - 3 cases						81	81	2	7	2	13.72	1	2	1	1	3	+ 18.1	4b	1.1267	1.9916	3	1	- 14.2	3	2
German-Dutch																									
W 347	F	10-1-9	C3	E	A 87	82	2	7	2	14.51	1	4	1	1	2	+ 1.6	1	2.5000	4.1437	4	1	- 9.5	3	4	
W 376	F	10-3-6	D	E	B 81	74	2	6	3	14.03	1	1	3	1	1	+ 16.1	3b	0.9900	1.6437	3	1	- 7.5	2	5	
W 437	F	10-6-12	C3	D	A 95	76	2	8	2	14.36	1														

TABLE I - Continued

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status		Biophotometer		Capillary wall resistance	Maturity (Todd Standards)		Mineral Density	
			Income	Education	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Standing Class	Sitting Class	Prior	Class	Bright Light	Total Integr.		Class	Class		Comparison with Chron. Age months	Class	Class
WB446	F	10-0-1	C2	E	B 82	85	2	8	2	13.10	1	3	2	1	1	+12.1	2b	2.9100	5.1508	4	1	+ 5.0	1	2
German-Irish																								
WB336	M	10-2-22	C	E	A 91	79	2	7	2	12.98	2	2	2	1	1	+ 5.2	1	1.0700	1.8972	3	2	+ 5.5	1	4
WB428	M	10-2-20	C3	E	A 94	81	2	8	2	13.10	1	1	3	1	1	+ 9.5	1	1.9800	2.2365	3	1	+ 10.5	3	4
WB603	M	10-0-17	E	E	A 89	81	2	8	2	14.47	1	2	4	1	3	+11.9	2b	1.7000	3.6358	4	1	+ 4.0	1	2
WB606	F	10-7-7	D	E	A 90	87	2	7	2	14.34	1	2	4	1	1	+23.7	4b	0.7300	2.8008	4	1	+ 15.5	4	3
WB815	F	10-3-20	D	E	B 72	84	2	6	3	12.96	2	1	3	2	3	+10.3	1	0.7300	1.3584	3	1	+ 14.0	1	4
WB886	M	11-6-22	D	E	C 81	81	2	7	2	12.83	2	1	3	1	1	+16.9	3b	0.9330	1.9165	3	1	+ 13.0	4	5
WB904	M	10-5-5	E	E	B 75	75	2	7	2	12.21	2	1	3	1	2	+25.5	4b	1.2800	2.8511	4	1	+ 6.5	1	1
WB932	F	10-3-18	D	E	A 92	88	1	9	1	14.03	1	3	1	1	1	+25.9	4b	1.7000	2.2915	4	1	+ 11.5	1	3
WB938	F	10-4-1	C3	E	B 85	76	2	6	3	14.86	1	1	3	1	2	+14.4	2b	2.5000	4.6696	4	1	+ 11.0	3	3
Averages - 10 cases					84	81	2	7	2	13.28	2	2	3	1	2	+15.2	2b	1.4203	2.6855	4	1	- 1.7	2	3
German-Lithuanian																								
WB697	F	11-2-27	D	E	C 68	79	2	3	4	12.14	2	3	1	1	2	- 4.1	1	0.6900	1.7212	3	1	- 16.0	4	3
German-Polish																								
WB458	F	10-7-22	C2	E	A 90	75	2	5	3	12.82	2	2	2	1	1	+21.0	4b	0.7300	1.1929	3	1	- 0.5	1	2
WB681	F	11-1-8	D	E	B 80	73	2	6	3	13.02	1	1	3	1	3	-10.0	1	1.5800	2.8312	4	1	- 19.0	5	1
Averages - 2 cases					85	74	2	6	3	12.92	2	2	3	1	2	+ 5.5	3b	1.1650	2.0021	4	1	- 9.8	3	2
German-Scotch																								
WB534	F	10-0-20	C3	E	A 87	77	2	7	2	14.36	1	1	1	1	2	+12.2	2b	0.4600	0.9333	2	1	+ 5.0	1	2
WB626	M	10-3-6	D	E	A 95	83	2	8	2	13.44	1	1	4	1	3	+39.3	5b	0.7900	1.5122	3	1	+ 20.5	1	1
WB708	M	10-5-10	C1	C	B 79	79	2	7	2	15.22	1	2	2	1	3	+ 8.8	1	1.0700	1.8040	3	1	+ 27.5	5	4
Averages - 3 cases					87	80	2	7	2	13.67	1	1	2	1	3	+20.1	3b	0.7733	1.4165	3	1	- 0.7	2	2
German-Swedish																								
WB856	F	10-4-21	C2	E	B 83	81	2	7	2	13.51	1	1	2	1	3	+20.3	3b	0.4950	1.0749	2	1	- 14.0	4	4
German-Welsh																								
WB928	M	10-4-4	D	E	C 60	87	1	7	2	13.44	1	1	1	1	2	+17.1	3b	0.8530	1.7499	3	1	+ 3.5	1	3
WB530	F	10-9-19	C2	E	B 80	81	2	8	2	12.38	2	2	2	1	1	+16.8	3b	2.1400	4.0160	4	1	+ 1.5	1	3
WB683	F	10-6-21	D	E	A 86	78	2	8	2	13.44	1	1	1	1	2	+ 1.2	1	1.2500	1.2802	4	1	- 7.5	2	5
WB842	M	10-1-17	C2	E	A 87	72	2	8	2	13.60	1	2	2	1	3	+ 3.2	1	1.5800	3.3529	4	1	- 19.0	5	4
WB653	M	10-7-12	C3	E	B 80	88	3	8	2	10.83	3	1	3	1	4	+ 3.1	1	1.5800	2.6198	4	1	- 8.5	2	5
WB857	F	10-8-17	D	E	C 54	81	2	7	2	refused test		1	3	1	1	+21.0	4b	1.2500	2.6594	4	1	+ 1.0	1	4
WB890	M	11-6-13	D	E	A 93	76	2	6	3	13.80	1	1	3	1	1	- 0.5	1	0.2910	0.5922	1	1	+ 15.0	1	4
Averages - 7 cases					77	78	2	7	2	12.96	2	1	2	1	2	+ 8.9	2b	1.2777	2.3246	3	1	- 2.0	2	4
Irish-Dutch																								
WB655	F	10-8-29	D	E	B 81	77	2	7	2	13.29	1	1	2	1	3	+12.2	2b	0.6260	1.2089	3	1	- 9.5	3	4
Irish-English																								
WB500	F	12-1-9	C	E	C 52	82	2	6	3	12.50	2	2	2	1	2	+19.6	3b	1.8400	2.6092	4	2	- 23.5	5	4
WB733	M	10-8-18	D	B1	B 83	78	2	7	2	13.89	1	1	2	1	3	- 8.6	1	1.4600	2.2773	4	1	- 2.0	1	2
WB449	F	10-5-3	B2	D	A 91	78	2	5	3	13.50	1	1	2	1	4	+22.5	4b	1.0700	1.9476	3	1	+ 1.5	1	4
Averages - 3 cases					75	79	2	6	3	14.30	1	1	2	1	3	+11.2	3b	1.4567	2.2780	4	1	- 8.0	2	3
Irish-German																								
WB352	M	10-2-8	C3	B3	C 70	79	2	6	3	12.20	2	1	2	1	2	+15.0	2b	1.1600	2.1520	4	1	+ 5.5	1	5
WB418	F	10-11-5	D	E	B 76	75	2	5	3	12.83	2	1	3	1	2	+ 4.5	1	0.3950	0.6549	2	1	- 5.5	2	3
WB435	F	11-1-23	D	E	A 93	83	2	9	1	14.10	1	4	1	1	1	+18.4	3b	0.7300	1.2982	3	2	- 5.5	1	1
WB495	F	9-9-5	C3	E	B 74	76	2	8	2	13.15	1	1	1	1	2	- 0.5	1	1.3500	1.6757	4	1	- 11.5	3	2
WB601	F	10-4-3	D	E	B 78	84	2	6	3	14.44	1	3	1	1	2	+ 7.7	1	0.7300	1.3617	3	1	+ 1.0	1	4
WB679	F	9-0-12	C3	E	A 88	75	2	8	2	13.15	1	2	2	1	1	+15.7	2b	1.4600	3.1250	4	1	+ 3.0	1	4
WB697	M	13-6-13	C3	E	A 86	77	2	5	3	12.82	2	2	2	1	4	+ 3.1	1	0.4980	0.9601	2	1	+ 0	1	4
WB839	F	9-3-22	C3	E	C 66	78	2	9	1	14.43	1	4	1	1	3	+ 9.8	1	0.3660	0.8158	2	2	- 15.5	4	4
WB889	F	9-10-11	C	E	A 97	78	2	5	3	13.58	1	2	2	1	3	+ 4.9	1	2.1400	3.7377	2	1	+ 6.5	1	2
Averages - 10 cases					80	78	2	7	2	13.58	1	2	2	1	2	+ 7.5	1b	1.0210	1.8592	3	1	- 1.7	2	3
Irish-Jewish																								
WB906	M	10-2-4	D	E	C 54	81	2	8	2	13.25	1	3	1	1	3	- 1.5	1	1.4600	3.4900	4	1	+ 4.0	1	x
Irish-Lithuanian																								
WB172	F	11-3-19	x	E	B 75	77	2	6	3	12.50	2	2	2	1	5	+17.5	3b	3.4000	5.8099	4	1	+ x	x	x
WB303	F	10-1-9	C1	D	A 94	80	2	5	3	13.58	1	1	5	1	2	+ 4.7	1	0.3660	0.6305	2	2	- 9.0	2	4
Averages - 2 cases					85	79	2	6	3	13.04	2	2	4	1	4	+11.1	2b	1.9930	3.2192	3	2	- 4.5	1	2
Irish-Polish																								
WB139	M	11-6-26	D	E	B 84	81	2	9	1	11.91	2	1	1	1	5	- 0.3	1	1.1800	2.4373	4	1	- 12.0	3	3
WB242	M	9-9-12	B	E	B 73	83	2	6	3	12.45	2	1	1	1	3	+11.5	2b	3.5500	5.7827	5	1	+ 9.0	1	1
Averages - 2 cases					79	82	2	8	2	12.18	2	1	1	1	4	+ 5.6	2b	2.4100	4.1000	5	1	- 1.5	2	2
Irish-Scotch																								
WB814	F	10-10-2	D	E	B 72	70	2	6	3	13.43	1	1	2	2	3	+ 8.2	1	1.1600	2.2296	4	1	- 9.5	3	4
Irish-Slovak																								
WB941	M	9-5-11	C1	E	A 88	79	2	4	4	11.53	2	1	3	1	2	- 2.2	1	1.1600	2.1383	4	1	+ 10.0	1	3

TABLE I - Continued

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status		Biophotometer			Capillary wall resistance	Maturity (Todd Standards)		Mineral Density
			Income	Education	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Standing Class	Sitting Class	Prior	Class	Bright Light	Total Integr.	Class		Class	Comparison with Chron. Age months		Class	Class
W8745	M	11-1-27	B3	E	YA 95	B2	2	7	2	12.89	2	1	2	1	2	+12.4	2b	0.6760	1.8112	3	1	- 0.5	1	2
Iranian-Welsh																								
W8751	M	10-2-7	C1	E	YA 93	B5	2	5	3	13.44	1	4	1	1	2	- 2.2	1	0.6260	1.0530	3	1	+ 7.0	1	4
W8711	M	12-7-6	D	E	B 82	B0	2	6	3	12.83	2	1	2	1	3	+18.2	3b	0.9200	1.6664	3	1	- 20.5	3	1
Averages - 2 cases					78	78	2	6	3	13.14	2	3	2	1	3	+ 8.0	2b	0.7730	1.5597	3	2	- 6.8	2	3
Italian-Polish																								
W8332	F	10-2-15	D	E	B 83	B4	2	6	3	12.63	2	1	1	1	1	+ 5.4	1	0.6760	1.2078	3	1	+ 5.5	1	1
Lithuanian-French																								
W8507	F	10-7-15	D	E	B 78	74	2	8	2	14.43	1	1	4	1	1	+23.3	4b	1.1600	2.1395	4	1	- 18.0	4	4
Lithuanian-German																								
W8357	F	10-8-15	D	E	A 86	76	2	4	4	13.65	1	3	1	1	1	+22.1	4b	0.7300	1.2830	3	1	+ 16.5	1	4
Lithuanian-Polish																								
W8611	F	10-3-24	E	E	C 66	B1	2	7	2	13.87	1	3	1	1	4	+ 0.9	1	0.5360	1.1648	2	1	+ 5.0	1	3
W8614	F	11-9-29	E	E	C 63	74	2	7	2	13.95	1	3	1	2	3	+22.8	4b	1.0700	1.9683	3	1	- 4.0	1	1
Averages - 2 cases					65	78	2	7	2	13.91	1	3	1	2	4	+11.9	3b	0.9030	1.5766	3	1	+ 0.5	1	2
Lithuanian-Russian																								
W8773	M	11-2-18	D	E	A 89	77	2	6	3	13.29	1	1	3	2	3	- 2.1	1	0.9200	1.5643	3	1	+ 7.5	1	1
Lithuanian-Slovak																								
W8940	M	10-11-3	E	E	B 83	B1	2	7	2	14.90	1	1	1	1	3	+ 4.4	1	1.7000	2.8858	4	1	+ 24.5	1	3
Polish-French																								
W8783	F	10-5-23	D	D	A 88	70	2	7	2	14.60	1	1	3	1	2	+ 9.8	1	0.7900	1.5254	3	2	- 29.0	5	3
Polish-German																								
W8921	M	10-3-11	D	E	C 62	79	2	6	3	15.04	1	1	1	1	2	+2.1	1	0.6760	1.1390	3	1	- 10.5	3	2
Polish-Greek																								
W8-79	F	12-2-0	C2	E	B 84	B3	2	5	3	13.44	1	3	1	1	3	+ 8.4	1	0.9900	2.0963	3	1	- 1.5	1	1
W8-89	M	10-11-1	C2	E	B 84	78	2	7	2	14.43	1	1	3	1	3	+44.0	5b	1.9500	3.9474	4	1	+ 7.5	1	2
Averages - 2 cases					84	82	2	6	3	13.94	1	2	2	1	3	+26.2	3b	1.4850	3.0219	4	1	+ 3.0	1	2
Polish-Irish																								
W8899	F	10-10-17	D	E	A 89	78	2	9	1	13.36	1	1	2	1	2	+13.3	2b	0.5800	1.3090	2	1	- 10.0	3	3
W8811	F	10-5-6	D	E	A 89	75	2	5	3	14.37	1	1	2	1	3	+ 2.3	1	2.5000	4.1106	4	1	+ 27.0	1	3
W8875	F	10-5-2	D	E	A 88	75	2	3	4	13.56	1	1	2	1	2	+15.4	2b	1.1600	2.1804	4	1	- 22.0	5	5
Averages - 3 cases					89	76	2	6	3	13.94	1	1	2	1	2	+10.3	2b	1.4133	2.5333	3	1	- 1.7	3	4
Polish-Italian																								
W8111	M	10-0-29	C3	E	A 86	79	2	9	1	12.20	2	1	2	2	5	- 0.7	1	1.3500	2.6960	4	1	+ 3.0	1	4
W8370	F	9-10-13	E	E	B 78	76	2	7	2	11.86	2	5	1	1	1	+13.1	2b	0.6760	2.1614	4	2	- 12.5	4	2
Averages - 2 cases					82	78	2	8	2	12.03	3	3	2	2	3	+ 2.2	2b	0.6675	2.4267	4	2	- 4.8	3	3
Polish-Lithuanian																								
W8127	M	13-4-17	E	E	D 32	77	2	5	3	15.73	1	2	1	1	5	+14.7	2b	0.8200	1.4914	3	1	- 7.5	2	1
Polish-Mexican																								
W8497	F	11-7-23	E	E	B 71	80	2	8	2	14.69	1	2	1	1	2	-12.4	2a	2.7000	4.4868	4	1	- 6.0	1	3
W8513	F	10-3-3	E	E	B 71	81	2	7	2	13.10	1	5	1	1	2	- 3.0	1	1.1600	2.0014	4	1	+ 1.5	1	3
Averages - 2 cases					71	81	2	8	2	13.90	1	4	1	1	2	- 7.7	2a	1.9300	3.2442	4	1	- 2.3	1	3
Polish-Slovak																								
W8117	F	11-9-29	D	E	D 29	87	3	5	3	13.72	1	2	1	2	5	-17.6	3a	3.4000	5.1193	4	2	- 23.5	5	5
W8461	F	10-7-2	D	E	A 86	74	2	7	2	12.02	2	3	2	1	2	+ 1.1	1	1.8400	2.5140	4	1	- 9.0	2	5
W8466	F	10-3-11	C3	E	B 83	B1	2	6	3	14.51	1	4	2	1	2	- 3.1	1	0.4800	1.0310	2	2	- 5.0	1	3
W8560	F	10-6-27	E	E	B 83	85	1	10	1	13.36	1	1	1	1	2	+11.6	2b	0.7800	1.2337	3	2	- 8.5	2	3
W8593	M	11-11-17	D	E	B 82	79	2	7	2	12.51	2	1	3	1	3	+ 5.0	1	0.6260	1.5630	3	1	- 8.6	2	3
Averages - 5 cases					73	77	2	7	2	13.22	1	2	2	1	3	- 1.0	2a	1.4700	2.4924	3	2	- 10.9	2	4
Polish-Ukrainian																								
W8466	F	10-11-1	C3	E	B 79	76	2	8	2	13.08	1	1	2	1	1	- 1.4	1	2.5000	4.4455	4	2	- 0.5	1	1
Polish-Welsh																								
W8267	F	10-5-6	C2	E	B 78	83	2	6	3	13.87	1	1	1	1	5	- 0.3	1	1.3800	2.6007	4	1	+ 2.0	1	5

TABLE I - Continued

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status		Biophotometer			Capillary wall resistance	Maturity (Todd Standards)		Mineral Density
			Income	Edu- cation	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Stand- ing Class	Sit- ing Class	Prior	Class	Bright Light	Total Integr.	Class		Class	Comparison with Chron. Age months		Class	Class
WB51P	F	10-1-15	B	E	B 85	85	1	8	2	12.69	2	1	2	1	2	+1.3	1	0.3660	0.7995	2	1	+ 5.0	1	2
Russian-English																								
WB54	M	10-8-15	C1	B3	A 93	70	2	5	3	12.83	2	5	1	1	3	+10.2	1	0.7900	1.5817	3	1	- 3.5	1	2
Russian-German																								
WB51	M	11-2-28	D	E	A 92	74	2	6	3	13.58	1	1	1	1	2	+13.4	2b	1.3500	2.2593	4	1	- 12.0	3	4
Russian-Irish																								
WB469	F	11-8-21	E	C	C 58	73	2	7	2	13.51	1	2	1	1	1	+4.6	1	0.4280	0.8464	2	1	+ 8.5	1	1
WB576	F	10-8-5	D	E	B 74	86	1	7	2	14.35	1	1	3	1	1	+18.8	3b	0.7300	1.4894	3	2	+ 2.5	1	1
Averages - 2 cases					65	80	2	7	2	13.93	1	2	2	1	1	+11.7	2b	0.5790	1.1579	3	2	+ 4.5	1	1
Russian-Lithuanian																								
WB542	F	10-5-5	B	D	C 69	82	2	7	2	14.52	1	4	1	1	3	+1.0	1	0.5360	0.9079	2	1	+ 16.0	1	4
Russian-Polish																								
WB536	F	10-6-15	D	E	B 82	85	1	7	2	12.56	2	1	2	1	3	+6.9	1	0.5360	0.9157	2	2	- 7.0	2	3
Russian-Welsh																								
WB466	F	11-2-13	D	E	C 80	75	2	8	2	13.80	1	1	1	1	2	+3.9	1	0.5850	1.0353	2	2	- 12.5	4	5
WB563	F	10-5-22	D	B1	B 81	84	2	8	2	13.44	1	3	1	1	3	+2.2	1	0.8760	1.2830	3	1	- 5.0	1	4
Averages - 2 cases					71	80	2	8	2	13.62	1	2	1	1	3	+3.1	1b	0.6305	1.1642	3	2	- 8.8	3	5
Scotch-American																								
WB127	F	9-8-26	D	D	C 65	85	1	7	2	13.08	1	1	3	1	3	+14.6	2b	0.3960	0.7703	2	1	- 5.0	1	2
Scotch-Irish																								
WB907	M	10-0-23	C	B2	B 85	79	2	9	1	14.20	1	1	3	2	3	+2.5	1	0.7900	1.4959	3	1	+ 12.0	1	2
WB933	F	8-4-19	D	E	A 89	86	1	8	2	15.31	1	4	3	2	1	+25.7	4b	0.9900	1.9025	3	1	+ 11.5	1	2
Averages - 2 cases					87	83	2	9	2	14.76	1	3	3	2	2	+13.2	3b	0.8900	1.6492	3	1	+ 11.9	1	2
Slovak-German																								
WB397	F	10-1-4	E	E	B 76	75	2	7	2	14.29	1	1	3	1	1	+10.5	1	1.7000	3.0324	4	1	- 3.0	1	4
WB483	F	11-1-16	D	E	B 80	72	2	6	3	12.82	2	2	4	1	1	+21.5	4b	0.6200	1.1179	3	1	- 13.0	4	4
Averages - 2 cases					78	74	2	7	3	13.56	2	2	4	1	1	+15.1	3b	1.1630	2.0752	4	1	- 8.0	3	4
Slovak-Irish																								
WB358	F	10-6-26	C3	E	B 74	77	2	8	2	12.45	2	3	1	1	1	+12.3	2b	1.5800	2.6924	4	1	- 15.0	4	5
Slovak-Lithuanian																								
WB142	M	7-9-0	E	E	D 42	80	2	7	2	13.35	1	1	3	1	5	- 1.2	1	0.5900	0.9831	2	1	- 7.0	2	4
WB143	F	5-5-27	E	E	D 34	82	2	8	2	11.95	2	1	3	2	5	- 0.8	1	x	x	x	1	- 6.0	1	2
Averages - 2 cases					38	81	2	8	2	12.46	2	1	3	2	5	- 0.8	1a	0.5900	0.9831	2	1	- 6.5	2	3
Slovak-Greek																								
WB485	F	13-3-13	E	E	D 48	72	2	5	3	13.37	1	2	2	1	2	+3.2	1	0.2320	0.5232	1	1	- 19.5	5	3
Slovak-Polish																								
WB151	M	8-0-19	E	E	C 67	78	2	9	1	11.80	2	1	3	2	5	+7.0	1	1.4600	2.3861	4	1	- 14.0	4	5
WB152	M	11-8-17	E	E	C 65	75	2	6	3	12.56	2	1	1	3	5	+3.5	1	1.3500	2.1168	4	1	- 1.5	1	1
WB153	F	13-2-5	E	E	C 64	77	2	9	1	12.27	2	1	2	2	4	+14.0	2b	0.8530	1.8101	x	1	- 16.0	4	5
WB322	F	10-6-27	C3	E	C 58	77	2	8	2	13.95	1	1	1	1	3	+2.3	1	2.1400	4.1749	4	1	- 19.5	5	3
WB342	M	11-4-20	D	E	A 90	77	2	6	3	12.44	2	1	2	1	2	+31.1	5b	1.7000	2.8762	4	1	- 10.0	3	4
WB574	F	8-9-16	C3	E	A 88	85	1	7	2	12.35	2	4	1	1	2	+9.3	1	0.6260	1.2702	3	1	- 1.5	1	1
WB798	M	10-0-28	D	E	A 92	76	2	4	4	12.82	2	1	2	1	3	+2.9	1	0.4800	0.7828	2	1	- 10.5	1	3
Averages - 7 cases					75	78	2	7	2	12.58	2	1	2	2	3	+10.0	2b	1.2270	2.1739	3	1	- 7.0	3	3
Slovak-Russian																								
WB476	F	10-11-24	E	E	D 47	73	2	9	1	13.88	1	3	2	1	3	+14.5	2b	0.8260	1.1131	3	1	- 13.5	4	4
WB482	M	10-3-25	D	E	A 98	80	2	7	2	13.22	1	1	3	1	2	+19.0	3b	0.8530	1.4700	3	1	- 8.0	2	1
WB546	M	11-10-14	D	E	C 63	82	2	7	2	14.86	1	4	1	1	2	+15.9	2b	0.3660	0.8053	2	1	- 11.5	3	3
WB895	F	10-2-4	E	E	B 85	76	2	8	2	12.59	2	1	2	1	2	+6.5	1	1.9800	3.1633	4	1	- 18.5	5	4
WB904	M	10-2-22	D	E	A 91	77	2	7	2	12.21	2	1	2	1	2	+11.3	2b	0.4800	0.8509	2	1	- 8.0	2	4
Averages - 5 cases					77	78	2	8	2	13.35	1	2	2	1	2	+13.4	2b	0.8570	1.5711	3	1	- 11.9	3	3
Slovak-Welsh																								
WB571	F	10-10-11	C3	E	C 64	78	2	9	1	12.70	2	1	1	2	2	+9.7	1	0.7900	1.4719	3	1	- 2.5	1	5
WB573	M	12-7-13	C3	E	C 64	66	3	7	2	14.69	1	1	2	2	1	+2.5	1	0.7300	1.3881	3	1	- 13.0	4	4
Averages - 2 cases					64	72	3	8	2	13.70	2	1	2	2	2	+6.1	1b	0.7600	1.4300	3	1	- 7.8	3	5
Swedish-English																								
WB346	M	10-4-28	C2	B3	A 93	82	2	7	3	13.51	1	5	1	1	1	- 0.5	1	1.2500	2.1729	4	1	+ 19.0	1	4

TABLE I - Continued

Case Number	Sex	Chron. Age	Socio-Economic Rating			Physical Rating by Medical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status		Biophotometer			Capillary wall resistance	Maturity (Todd Standards)		Mineral Density	
			Income	Education	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Standing Class	Sitting Class	Prior	Class	Bright Light	Total Integr.	Class		Class	Comparison with Chron. Age months		Class
WB527	M	11-0-14	D	E	B 80	82	2	8	2	15.99	1	2	2	1	2	+20.2	3b	0.6760	1.1485	3	1	+ 4.5	1	2	
Welsh-American																									
WB595	M	9-10-15	D	E	C 68	84	2	7	2	13.58	1	1	1	1	2	+3.0	1	1.0700	1.8246	3	1	- 16.0	4	2	
Welsh-Dutch																									
WB453	F	10-11-24	E	E	B 84	86	1	10	1	12.38	2	1	2	1	1	+25.0	4b	1.8400	3.3649	4	1	- 1.0	1	3	
Welsh-English																									
WB430	M	11-5-2	D	E	C 59	80	2	7	2	14.77	1	1	3	1	1	+36.1	5b	1.5800	2.7045	4	1	- 1.0	1	2	
WB444	M	10-5-20	B	A2	A 98	84	2	8	2	13.58	1	2	3	1	2	+26.6	5b	1.7000	2.7349	4	1	+ 7.0	1	4	
WB564	M	11-3-16	C3	E	A 89	78	2	7	2	13.56	1	1	3	1	1	+16.8	3b	0.6800	1.1544	2	1	- 11.0	3	3	
WB565	M	10-0-28	D	E	D 47	76	2	8	2	12.57	2	1	3	1	1	+ 1.8	1	2.5000	4.6599	4	1	- 0.5	1	1	
WB785	F	10-8-1	C	E	B 83	89	3	7	2	12.83	2	3	1	1	1	+ 6.3	1	1.1800	2.0823	4	1	- 7.5	2	4	
WB802	M	12-10-11	D	B3	A 90	75	2	6	3	12.38	2	4	1	1	2	- 4.5	1	0.8600	0.7416	2	1	- 25.0	5	3	
WB812	F	10-4-8	E	E	B 76	75	2	7	2	13.98	1	4	1	1	3	+ 9.7	1	1.4500	2.8043	4	1	- 4.5	1	1	
WB831	F	10-2-5	C1	C	A 94	71	2	6	3	12.64	2	5	1	1	3	- 7.4	1	1.8400	3.2391	4	1	+ 22.0	1	5	
Averages - 8 cases						80	76	2	7	2	13.26	2	3	2	1	2	+11.0	2b	1.3983	2.4776	4	1	- 2.5	2	3
Welsh-German																									
WB393	M	10-0-7	D	E	B 74	79	2	6	3	13.59	1	1	2	1	1	+ 8.2	1	1.1600	2.0955	4	1	- 15.0	4	2	
WB470	F	10-7-11	E	E	D 48	74	2	7	2	13.50	1	1	2	1	1	+34.2	5b	0.6260	1.0549	3	1	+ 3.5	1	5	
WB871	F	11-3-26	D	E	D 48	71	2	3	4	12.62	2	1	2	1	2	+12.7	2b	0.6760	1.2098	3	1	+ 4.5	1	4	
WB807	M	10-4-7	D	E	B 76	82	2	7	2	12.70	2	1	3	1	2	+17.0	3b	0.8530	1.7138	3	1	+ 3.5	1	4	
WB808	M	10-5-1	E	E	C 69	80	2	9	1	13.72	1	1	2	1	3	-14.0	3a	1.3500	2.4091	4	1	+ 2.5	1	2	
WB810	F	10-3-29	C	E	B 83	86	1	7	2	14.03	1	3	1	1	3	+23.6	4b	2.5000	5.2311	4	1	- 2.0	1	4	
WB766	F	9-11-23	C2	D	A 89	77	2	7	2	10.87	3	1	4	1	2	+21.6	4b	1.9600	3.8720	4	1	+ 10.0	1	2	
Averages - 7 cases						70	78	2	7	2	13.00	2	1	2	1	2	+12.7	3b	1.3064	2.5123	4	1	1.0	1	3
Welsh-Irish																									
WB903	M	10-7-22	C3	D	B 77	76	2	8	2	12.70	1	2	1	2	4	+4.2	1	1.1600	2.1232	4	1	- 7.0	2	3	
Welsh-Jewish																									
WB445	F	10-3-19	C	E	B 79	86	1	9	1	14.44	1	2	1	1	2	+14.2	2b	1.8400	3.1019	4	1	+ 3.5	1	5	
Welsh-Philippino																									
WB782	M	10-3-0	D	E	C 59	80	2	7	2	13.22	1	1	3	1	2	+6.9	1	0.3400	0.6910	2	1	+ 0.5	1	1	
Welsh-Polish																									
WB664	F	10-10-17	D	E	A 88	84	2	7	2	12.69	2	1	1	1	4	+7.0	1	1.2500	2.2969	4	1	- 5.0	1	3	
WB645	F	9-4-28	C2	E	B 77	76	2	6	3	13.96	1	2	2	1	3	+15.2	2b	0.5560	1.0145	2	2	- 9.5	3	3	
Averages - 2 cases						83	80	2	7	3	13.33	2	2	2	1	4	+11.1	2b	0.6930	1.6557	3	2	- 7.3	2	3
Welsh-Russian																									
WB762	F	10-10-26	C3	E	A 87	79	2	7	2	13.65	1	2	2	1	1	+10.8	1	1.0700	1.8445	3	1	- 9.5	3	4	
Welsh-Slovak																									
WB156	F	10-5-26	C3	E	B 85	75	2	8	2	11.65	2	2	1	1	5	-12.6	2a	1.1600	2.2385	3	1	+ 14.5	1	5	

TABLE II
SUMMARY OF SOCIO-ECONOMIC BACKGROUND AND NUTRITIONAL
STATUS OF MAJOR RACIAL-NATIONAL GROUPS

Nationalities	Socio-Economic Rating			Physical Examination		Dental examination for caries		Hemoglobin		Plantar Contact		Percentage Loss of height during		Weight Status		Biophotometer			Capillary wall resistance	Maturity Todd Standards		Mineral Density
	Income	Education	Home	Rating	Class	Rating	Class	Average	Class	Class (a)	Class (b)	Standing Class	Sitting Class	Prior Class	Class	Bright Light	Total Integr.	Class	Class	Comparison with Chron. age-months	Class	Class
American	3.6	4.3	77	79	2	7	2	13.42	1	2	2	1	2	11.2	2b	1.2753	2.3483	3	1	- 3.2	2	3
English	3.8	3.9	85	79	2	7	2	13.38	1	2	2	1	2	11.8	2b	1.3302	2.4202	3	1	- 4.6	2	3
German	3.4	4.7	89	77	2	7	2	13.41	1	2	2	1	2	10.1	2b	1.0281	1.9697	3	1	- 2.5	2	3
Irish	3.5	4.1	79	80	2	7	2	13.42	1	2	2	1	3	10.9	2b	1.4269	2.6824	4	1	- 3.4	2	3
Italian	3.6	4.9	77	77	2	7	2	13.29	1	1	2	1	3	9.9	2b	1.4841	2.6253	3	1	- 4.5	2	3
Jewish	3.1	3.4	84	82	2	8	2	13.71	1	2	2	1	3	16.7	3b	1.1140	1.9956	3	1	- 1.0	2	3
Lithuanian	3.7	5.0	79	76	2	6	3	13.09	1	2	2	1	2	11.8	2b	1.2824	2.3437	3	1	- 2.1	2	3
Polish	3.8	4.9	76	77	2	7	2	13.14	1	2	2	1	2	6.0	2b	1.1306	2.0915	3	1	- 4.5	2	3
Russian	3.6	4.9	75	76	2	6	3	13.30	1	2	1	1	3	5.4	2b	1.2800	2.2967	4	1	- 2.3	2	3
Slovak	3.6	4.9	72	78	2	6	2	13.48	1	2	2	1	2	13.0	2b	1.1905	2.1950	3	1	- 5.6	2	3
Syrian	3.5	4.8	79	78	2	7	2	13.21	1	2	2	1	2	14.7	2b	1.2058	2.4001	3	1	- 0.9	2	3
Welsh	3.2	4.6	80	77	2	7	2	12.98	2	2	1	1	2	5.8	1b	1.1905	1.9773	3	1	- 8.8	3	4
American Negro	4.2	4.6	64	80	2	8	2	12.80	2	2	3	1	4	6.1	2b	1.2747	2.5452	3	1	- 5.4	2	2
English Welsh	3.8	4.7	76	78	2	6	3	13.79	1	2	2	1	3	9.1	1b	1.3229	2.4655	3	1	- 1.8	2	3
German Irish	3.9	5.0	84	81	2	7	2	13.28	2	2	3	1	2	15.2	2b	1.4203	2.6855	4	1	- 1.7	2	3
Irish German	3.3	4.7	80	78	2	7	2	13.58	1	2	2	1	2	7.5	1b	1.0210	1.8592	3	1	- 1.7	2	3

TABLE III - NUTRIENT INTAKE OF CHILDREN ACCORD-
ING TO RACIAL AND NATIONAL BACKGROUND

American														
Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Mgm. Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)		
WB-7	M	231	21.6	30.9	73.2	0.20	0.50	6.01	1543	226	168	18		
WB-8	M	2376	51.8	70.3	255.4	0.40	1.10	10.72	3514	402	340	68		
WB-9	M	2785	34.8	124.9	223.3	0.39	1.03	10.79	4953	466	278	58		
WB-10	M	1393	37.4	35.2	156.2	0.30	0.77	9.18	2020	308	288	75		
WB-11	M	1613	51.9	56.0	199.3	0.49	1.25	15.18	6913	528	673	88		
WB-12	M	2344	50.3	84.2	223.3	0.46	1.11	11.71	4192	358	341	74		
WB-13	F	2587	58.7	87.6	220.3	0.44	0.94	12.01	3721	380	204	71		
WB-14	F	2387	55.6	67.5	212.1	0.40	1.19	13.40	3524	477	400	59		
WB-15	F	2805	72.1	98.5	264.3	0.57	1.66	16.75	4567	611	527	163		
WB-16	F	2509	71.1	95.8	233.2	0.39	1.35	17.13	3844	544	487	79		
WB-17	F	1981	46.2	69.5	198.7	0.32	1.10	9.40	4010	443	362	40		
WB-18	F	2634	46.5	90.9	269.2	0.43	1.10	12.75	2441	524	333	44		
WB-19	F	2537	35.8	62.2	222.1	0.32	1.22	10.42	2542	402	327	51		
WB-20	F	2176	42.7	65.7	227.3	0.36	0.90	12.02	1963	357	207	66		
WB-21	F	1804	49.3	69.5	185.3	0.53	1.16	10.24	3757	392	333	72		
WB-22	F	1580	41.5	43.2	199.1	0.57	1.10	8.39	2768	349	350	43		
WB-23	F	5117	58.4	124.5	301.2	0.78	1.66	13.21	3677	512	470	93		
WB-24	F	1301	54.4	97.4	194.4	0.39	1.09	15.78	3330	391	306	76		
WB-25	F	2112	54.5	101.3	180.3	0.33	1.07	11.76	3754	232	259	24		
WB-26	F	2075	55.5	97.9	149.2	0.34	1.08	11.84	3795	360	271	27		
WB-27	F	1409	21.3	48.5	131.0	0.19	0.47	6.49	14.2	139	117	25		
WB-28	F	1558	48.4	49.2	147.5	0.48	1.30	9.41	4704	279	364	46		
WB-29	F	3060	84.7	100.7	282.2	0.43	1.40	20.13	4797	580	469	150		
WB-30	F	2409	47.5	85.1	215.3	0.35	1.24	12.05	3749	526	471	86		
WB-31	M	1399	56.1	87.4	206.1	0.37	0.96	17.48	3436	487	209	47		
WB-32	M	1725	48.5	53.5	128.1	0.30	0.73	10.73	1560	290	230	33		
WB-33	M	1443	40.2	46.5	150.7	0.27	0.76	7.96	2333	320	330	65		
WB-34	M	2931	77.3	125.3	242.3	0.59	1.56	15.35	7441	706	470	96		
WB-35	M	1840	54.7	63.5	165.4	0.30	1.10	11.06	6.89	606	432	71		
WB-36	F	2146	36.5	75.9	217.3	0.48	1.05	11.21	3587	424	376	141		
WB-37	F	2880	73.2	87.3	235.2	0.74	1.63	12.59	7889	479	571	106		
WB-38	F	2689	61.2	94.2	294.3	0.59	1.37	14.56	5326	526	517	135		
WB-39	F	2306	56.1	87.4	206.1	0.37	0.96	17.48	3436	487	209	47		
WB-40	F	3251	69.5	132.0	277.5	0.58	1.50	15.29	5454	477	384	149		
WB-41	F	1406	21.3	46.5	131.0	0.19	0.47	6.49	14.2	139	117	25		
WB-42	F	1510	23.3	46.5	131.0	0.19	0.53	7.41	1422	159	117	29		
WB-43	F	1580	41.4	38.5	13.4	0.47	0.99	7.82	2758	297	270	41		
WB122	F	1398	26.2	49.7	105.4	0.15	0.51	6.75	2534	173	101	40		
WB125	F	2305	61.8	80.0	233.6	0.41	1.20	11.33	3086	364	250	37		
WB284	F	2771	26.5	28.2	177.2	0.22	0.66	10.16	372	142	203	13		
WB312	F	2609	57.5	85.4	203.5	0.50	1.15	15.44	5324	535	463	180		
WB325	F	2609	57.5	85.4	203.5	0.50	1.15	15.44	5324	535	463	180		
WB326	F	3650	105.4	137.9	254.3	0.82	1.95	24.66	3755	646	715	56		
WB336	M	3100	66.9	117.0	281.1	0.62	1.72	18.52	3899	935	591	45		
WB337	M	2004	47.9	92.8	136.2	0.30	0.92	11.85	3636	421	392	85		
WB339	M	1193	36.5	29.6	131.9	0.22	0.51	5.21	1242	301	210	23		
WB340	M	1781	42.8	46.6	211.7	0.26	0.82	9.17	1807	349	296	43		
WB343	F	2609	57.5	85.4	203.5	0.50	1.15	15.44	5324	535	463	180		
WB344	F	2731	60.4	97.1	217.5	0.27	0.82	10.43	2325	720	488	63		
WB345	F	3557	71.0	94.0	219.8	0.32	0.82	10.43	2325	720	488	63		
WB349	F	2263	59.5	71.0	226.0	0.50	1.31	13.36	346	560	457	116		
WB350	M	2365	66.9	82.5	201.5	0.59	1.47	14.75	3096	550	402	45		
WB354	F	2309	54.0	74.1	236.1	0.56	1.19	11.31	3587	424	376	141		
WB401	F	2916	66.7	124.3	226.4	0.63	1.45	15.28	5.32	471	534	95		
WB409	F	3049	49.3	100.3	336.4	0.56	1.44	11.50	5759	480	369	123		
WB411	F	1716	48.5	84.5	197.4	0.33	1.06	11.85	4110	421	322	89		
WB411	F	1806	36.7	45.2	177.4	0.33	0.82	10.43	2325	720	488	63		
WB502	M	1700	33.2	58.8	172.9	0.20	0.50	6.01	1543	226	168	18		
WB507	M	824	29.1	15.7	132.1	0.17	0.44	6.01	1543	226	168	18		
WB525	F	1776	44.1	41.0	174.1	0.40	1.10	11.11	3191	449	373	194		
WB539	F	1701	39.3	61.4	178.5	0.22	0.76	6.06	1444	241	160	43		
WB543	F	1630	47.3	65.5	111.1	0.29	1.11	11.30	3593	374	333	76		
WB547	F	2086	50.7	54.3	165.4	0.33	1.07	11.30	3593	374	333	76		
WB552	F	1612	35.5	36.7	150.4	0.24	0.73	10.73	1560	290	230	33		
WB590	M	1956	44.7	56.7	206.4	0.44	1.12	12.43	3213	374	294	50		
WB700	F	3014	68.5	66.9	201.5	0.59	1.47	14.75	3096	550	402	45		
WB702	F	2047	46.0	46.9	201.5	0.59	1.47	14.75	3096	550	402	45		
WB703	F	2951	61.5	69.4	236.5	0.56	1.44	11.50	5759	480	369	123		
WB705	F	1553	39.2	30.0	131.9	0.22	0.51	5.21	1242	301	210	23		
WB712	F	2330	78.4	79.3	236.2	0.41	1.34	22.03	3755	646	715	56		
WB718	F	2343	60.1	97.1	217.5	0.27	0.82	10.43	2325	720	488	63		
WB736	F	3516	69.5	125.3	242.3	0.59	1.56	15.35	7441	706	470	96		
WB739	M	2659	67.5	100.5	201.5	0.59	1.47	14.75	3096	550	402	45		
WB740	M	2835	53.3	55.4	216.2	0.57	1.23	10.32	2.81	393	330	25		
WB741	M	2484	67.2	66.1	209.9	0.57	1.43	10.32	2.81	393	330	25		
WB742	M	2125	48.4	70.2	210.9	0.53	1.17	11.53	3217	471	441	91		
WB745	F	2324	56.2	66.5	201.5	0.46	1.28	10.42	11.72	354	335	51		
WB752	F	2215	52.3	56.1	200.1	0.31	1.19	11.53	4.64	554	295	51		
WB758	F	1542	52.3	56.1	200.1	0.31	1.19	11.53	4.64	554	295	51		
WB805	F	2171	46.3	57.1	236.5	0.50	0.74	10.77	320	199	160	15		
WB819	F	1073	24.4	44.5	55.3	0.13	0.43	6.01	1543	226	168	18		
WB822	F	1374	35.3	66.7	124.1	0.14	0.70	8.30	43.6	273	340	32		
WB871	F	2090	51.3	75.1	200.7	0.54	1.28	8.52	3703	305	211	30		
WB873	F	1562	45.0	73.1	179.4	0.34	1.13	10.06	5697	271	285	32		
WB808	M	2703	68.0	104.7	132.5	0.36	1.01	10.51	4355	373	303	38		
WB838	F	1890	32.0	87.9	190.3	0.40	0.70	15.71	4690	540	510	83		
WB935	M	1879	48.5	54.5	195.0	0.47	1.10	11.95	5311	321	309	106		
WB935	M	1801	46.5	50.7	192.4	0.27	0.80	13.54	2113	713	275	120		
WB936	M	1455	40.5	42.7	162.9	0.40	0.97	7.76	2530	302	203	87		
WB937	M	3129	69.7	98.4	279.1	0.50	1.39	16.13	4019	557	337	101		
WB154	F	2514	51.8	93.2	215.2	0.74	1.59	18.28	4577	510	513	243		
WB160	F	2828	59.3	55.5	181.1	0.43	1.13	12.73	6543	435	432	200		
WB168	F	1484	48.5	53.5	155.9	0.37	1.13	11.32	6434	754	435	102		
WB173	F	3037	54.5	147.5	204.4	0.80	1.32	10.56	4111	355	370	74		
WB185	F	2844	43.5	78.9	204.4	0.56	1.16	1.89	2844	428	268	40		
WB177	F	1558	61.9	66.0	241.5	0.35	1.28	15.97	5136	535	351	125		
WB210	F	1470	48.4	58.5	197.4	0.29	0.98	10.53	2444	319	239	26		
WB892	M	1055	34.5	43.0	234.9	0.38	0.94	11.06	2742	329	207	176		
WB902	F	1391	33.4	32.5	165.9	0.40	0.92	6.43	2097	290	173	32		</

TABLE III - Continued

English

Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)
W351	F	3200	70.8	119.1	292.8	0.77	1.52	15.34	4192	546	432	79
W356	F	2014	57.5	66.2	206.6	0.38	1.14	10.16	2535	602	293	44
W360	F	3649	81.1	106.3	316.7	0.72	1.97	26.73	16228	757	597	130
W364	F	2749	62.3	75.6	276.2	0.52	1.53	14.61	8577	335	283	92
W367	F	2086	40.8	61.6	126.3	0.25	0.91	9.97	3298	484	267	106
W368	F	2293	53.0	75.1	231.0	0.56	1.19	10.15	3150	391	320	34
W369	F	2334	65.7	81.9	214.7	0.71	1.46	12.14	2427	495	424	50
W374	F	2581	54.8	98.1	255.8	0.26	1.04	11.31	3258	557	307	68
W376	F	1834	39.6	45.4	150.3	0.36	0.91	11.43	6303	323	163	127
W377	F	1841	58.9	40.3	162.6	0.30	1.29	20.90	5987	627	670	61
W378	F	2377	53.0	86.7	233.4	0.70	1.80	12.17	4596	536	466	66
W379	F	3036	66.7	107.8	221.5	0.78	1.63	13.43	7124	423	507	135
W382	F	1998	63.6	59.9	150.2	0.50	1.40	14.20	2813	449	441	97
W383	F	2230	58.2	81.5	197.6	0.68	1.39	11.35	4767	428	366	109
W384	F	1989	58.0	29.2	104.1	0.17	0.54	5.69	1420	162	87	37
W385	F	1774	59.1	127.0	204.7	0.71	1.60	17.54	18860	473	581	191
W386	F	1856	59.3	80.2	199.0	0.46	1.13	11.34	5238	240	390	115
W387	F	1859	45.3	53.1	145.0	0.18	0.81	11.40	2395	308	207	30
W388	F	1714	49.9	58.0	164.6	0.16	0.96	12.10	4036	300	353	51
W389	F	1818	47.1	50.4	198.3	0.31	0.94	12.55	2138	249	185	48
W390	F	1852	47.1	50.4	198.3	0.31	0.94	12.55	2138	249	185	48
W391	F	1790	48.6	56.8	171.7	0.53	1.26	15.61	4957	399	240	159
W392	F	1777	55.0	53.8	286.9	0.57	0.98	4.36	3085	220	297	34
W393	F	2389	55.3	65.3	215.2	0.45	1.36	14.43	7198	390	337	131
W394	F	2821	43.5	94.3	280.2	0.62	1.32	12.36	3324	516	466	129
W395	F	2760	76.8	109.4	238.2	0.76	1.69	14.21	3224	568	500	48
W396	F	2953	78.9	81.6	255.0	0.58	1.74	19.16	5353	580	500	117
W397	F	2889	62.2	72.6	278.0	0.33	1.20	15.23	5282	410	120	107
W398	F	2911	57.0	89.2	265.6	0.50	1.23	13.30	7661	403	371	107
Averages		2314	57.4	74.2	213.2	0.50	1.26	13.75	5386	458	365	91

German

W341	F	3986	90.0	124.5	324.6	0.79	2.03	22.34	10401	690	678	171
W342	F	2858	89.3	72.7	285.5	0.49	1.40	12.30	2971	519	398	47
W343	F	1188	38.2	38.5	130.8	0.31	0.86	9.01	1670	292	238	244
W344	F	2814	65.3	68.2	238.6	0.45	1.44	17.26	6032	541	483	126
W345	F	3464	80.7	136.8	292.4	1.02	1.97	16.78	8583	576	583	41
W346	F	2119	48.4	61.2	187.9	0.30	0.89	8.73	2344	293	211	24
W347	F	2277	59.5	69.0	195.3	0.41	1.30	16.06	5702	582	283	136
W348	F	1771	41.0	61.0	154.2	0.23	0.80	10.56	2306	300	256	48
W349	F	3619	84.1	116.7	233.9	0.98	2.13	21.57	7009	721	704	93
W350	F	2415	63.5	86.7	217.6	0.67	1.45	14.84	6917	426	437	45
W351	F	1446	40.8	44.8	143.4	0.48	1.00	7.35	2773	215	317	17
W352	F	2765	62.8	91.0	233.7	0.40	1.28	14.96	2763	527	348	60
W353	F	2339	56.5	77.5	178.6	0.54	1.31	12.30	27003	573	453	157
W354	F	2913	58.9	91.2	336.4	0.49	1.23	11.30	7178	443	331	112
W355	F	1986	36.4	69.6	154.2	0.28	0.85	10.29	1427	330	286	31
W356	F	1346	35.5	24.3	144.6	0.26	0.76	6.46	1551	270	234	33
W357	F	2199	60.1	72.3	161.6	0.27	1.10	13.56	3350	341	331	103
W358	F	3609	65.2	62.3	333.5	0.54	1.53	21.59	2003	761	539	119
W359	F	2545	61.2	96.2	247.6	0.75	1.27	11.32	5611	341	355	36
W360	F	1814	54.2	70.2	114.2	0.47	1.17	10.28	1942	496	374	53
W361	F	1829	46.3	54.3	152.0	0.16	0.84	13.23	7081	257	337	54
W362	F	2978	79.4	95.5	242.6	0.33	1.36	17.68	2801	299	270	45
W363	F	3063	66.6	79.7	258.7	0.42	1.41	16.07	3601	292	143	56
W364	F	1754	39.4	75.3	182.1	0.20	1.54	16.78	3003	307	478	66
W365	F	2275	76.0	84.1	264.7	0.25	0.79	11.95	3003	307	478	66
W366	F	1754	39.4	75.3	182.1	0.20	1.54	16.78	3003	307	478	66
W367	F	1883	43.0	56.7	202.0	0.23	0.79	11.95	3003	307	478	66
W368	F	2765	47.9	105.6	252.0	0.30	0.79	11.95	3003	307	478	66
W369	F	4013	69.2	184.3	375.0	0.28	1.40	13.21	3309	241	184	47
W370	F	1858	34.3	61.3	104.0	0.39	0.82	11.59	3322	318	274	69
W371	F	2155	37.5	83.9	237.1	0.37	1.33	11.29	74.0	406	450	87
W372	F	2353	63.0	69.7	195.1	0.36	1.17	14.93	5779	477	411	37
W373	F	2568	59.5	100.1	234.2	0.39	1.30	16.09	4739	522	280	146
W374	F	2706	76.3	96.2	257.3	0.31	1.13	16.14	4678	514	666	43
W375	F	1124	31.2	36.5	159.3	0.15	0.56	5.31	1269	265	144	24
Averages		2410	57.5	78.3	221.0	0.46	1.24	13.53	4993	447	345	75

Greek

W313	M	3424	72.1	138.3	293.4	0.93	1.54	14.98	13892	469	554	101
W314	M	1176	30.5	35.1	126.3	0.27	0.59	14.98	7437	274	344	59
W315	M	1109	34.0	47.2	133.5	0.50	0.77	5.22	6703	227	314	26
W316	M	1379	45.5	34.1	148.3	0.29	0.34	8.65	2342	335	240	73
W317	M	1379	45.5	34.1	148.3	0.29	0.34	8.65	2342	335	240	73
W318	M	2241	52.5	66.1	178.9	0.59	1.46	19.24	5853	400	463	109
W319	M	1790	64.2	56.0	161.2	0.31	1.13	12.96	4327	647	401	76
W320	M	3266	64.7	134.4	280.7	0.43	1.30	16.24	6914	476	517	140
Averages		1970	52.4	67.9	184.0	0.44	1.09	11.90	6196	406	373	83

Hungarian

W175	M	3625	78.2	145.0	313.1	0.59	1.69	15.55	5308	856	463	77
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Irish

W321	F	1874	60.4	71.9	146.4	0.54	1.41	11.61	2685	494	455	54
W322	F	2803	64.3	100.4	233.7	0.59	1.22	10.71	3919	379	376	38
W323	F	2803	60.5	92.9	287.1	0.45	1.21	12.93	6307	355	306	128
W324	F	2803	61.1	86.1	310.1	0.38	0.95	9.34	3289	276	220	64
W325	F	2110	47.4	69.3	188.9	0.76	1.24	21.64	8843	725	563	93
W326	F	2834	77.9	123.4	291.4	0.48	1.10	11.89	3683	384	318	86
W327	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W328	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W329	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W330	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W331	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W332	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W333	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W334	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W335	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W336	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W337	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W338	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W339	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W340	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W341	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W342	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W343	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W344	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26
W345	F	3008	44.0	86.0	180.0	0.44	1.08	9.73	4046	310	366	51
W346	F	2469	67.5	88.9	177.4	0.38	1.33	17.14	5810	412	401	26

TABLE III - Continued

Irish											
Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Ascorbic Acid (Vitamin C)
WB28	M	1597	34.4	44.7	153.1	0.19	0.62	7.22	2851	229	40
WB49	F	2247	47.5	65.5	202.2	0.40	1.08	13.13	6247	533	107
WB61	M	2075	47.4	78.2	185.2	0.33	0.97	11.59	3124	345	83
WB96	F	2840	55.7	85.2	214.7	0.42	1.21	15.90	16256	546	88
WB12	M	3029	58.6	104.3	271.3	1.10	2.27	24.04	2107	778	369
WB13	F	1225	33.0	28.6	144.3	0.29	0.72	7.03	1678	281	81
WB19	F	2916	63.1	76.5	271.1	0.38	1.32	19.05	4840	505	171
WB33	M	2359	66.5	81.2	215.6	0.72	1.52	14.70	4014	508	41
WB36	F	2996	51.8	78.3	185.0	0.43	1.34	13.14	5878	474	86
WB12	M	1554	40.5	44.6	187.5	0.33	0.84	7.85	3249	383	105
WB56	F	2339	54.0	59.0	224.3	0.43	1.25	11.00	1872	570	70
WB141	M	4486	80.1	100.7	288.2	0.60	1.38	22.08	8537	774	609
WB170	M	2304	51.3	70.5	207.1	0.43	1.21	11.69	3448	581	180
WB900	F	1799	37.8	43.5	176.1	0.40	1.01	14.66	3944	410	80
WB46	M	2576	61.8	70.5	263.3	0.56	1.44	13.43	6155	665	187
WB33	M	2068	47.3	58.8	243.3	0.40	0.91	8.15	3520	240	85
WB16	M	1739	37.5	63.8	187.4	0.22	0.71	8.78	2593	425	40
WB22	M	2198	55.4	65.5	247.6	0.53	1.02	9.41	2954	319	83
WB34	M	1451	38.9	54.2	125.3	0.52	0.92	5.38	2009	233	270
WB36	M	3241	63.8	121.0	308.0	0.47	1.24	14.89	18278	374	21
WB83	M	1532	45.2	70.8	195.3	0.55	0.83	6.60	3825	166	55
Averages		2249	56.5	76.5	211.5	0.48	1.24	13.43	4883	457	84
Italian											
WB20	F	820	23.2	23.7	85.3	0.21	0.47	4.01	1254	246	34
WB31	F	1263	31.5	37.0	139.5	0.31	0.69	9.19	7662	204	56
WB32	F	1514	39.0	61.1	135.0	0.21	0.74	7.02	2412	247	41
WB35	F	1483	38.6	53.3	130.0	0.19	0.62	7.66	3610	320	48
WB50	F	2387	54.0	94.8	237.8	0.48	1.21	11.84	3188	233	29
WB54	M	2173	62.6	110.1	134.8	0.41	0.95	8.46	4275	759	57
WB66	F	1373	34.5	25.0	180.6	0.26	0.64	7.24	3606	278	78
WB90	M	1477	46.5	44.8	152.7	0.52	1.11	9.59	4371	324	63
WB96	M	1508	38.4	34.4	184.2	0.23	0.68	8.25	4120	296	89
WB103	F	2013	40.8	64.9	211.8	0.41	0.89	8.30	1937	301	31
WB105	M	1217	52.6	40.2	103.8	0.07	1.16	8.48	2551	272	115
WB108	F	2248	49.5	79.0	211.0	0.46	1.10	12.05	24673	338	90
WB124	F	1176	33.9	41.4	102.2	0.11	0.59	6.90	1218	234	19
WB129	F	2341	55.5	90.5	232.0	0.43	1.37	14.16	3530	504	101
WB130	F	1074	36.3	29.1	110.2	0.12	0.57	6.10	2310	351	78
WB140	M	1288	53.8	42.3	112.5	0.50	1.16	9.78	2458	360	117
WB177	M	980	32.3	24.5	101.1	0.12	0.59	7.15	2643	228	115
WB178	M	1622	46.2	45.8	177.1	0.46	1.02	8.21	5739	350	100
WB179	F	876	32.7	24.5	91.2	0.09	0.56	6.29	2407	258	104
WB184	M	1322	41.4	52.2	111.5	0.37	0.88	6.01	2154	211	24
WB238	F	1343	41.4	27.7	161.1	0.36	0.60	7.51	1261	143	0
WB307	F	2401	54.4	55.4	257.2	0.55	1.23	12.36	1185	368	148
WB318	M	1241	39.7	22.8	139.8	0.42	0.81	6.13	1395	146	305
WB372	M	909	29.1	18.1	109.3	0.11	0.49	6.08	558	135	52
WB375	M	1221	38.4	41.1	115.4	0.24	0.74	7.53	1417	265	173
WB380	F	1510	47.7	47.1	110.0	0.34	0.96	9.38	895	395	90
WB401	M	2870	55.5	106.3	252.4	0.67	1.46	12.10	12611	325	65
WB515	F	2050	54.8	97.1	123.4	0.25	0.83	15.75	1332	339	48
WB523	F	1956	51.0	55.6	154.0	0.23	0.82	11.10	4353	453	49
WB526	M	1661	54.2	54.0	150.7	0.44	1.08	13.14	4169	326	90
WB529	M	2703	62.3	109.1	283.0	0.43	1.16	14.09	4353	423	53
WB531	F	2041	54.1	83.0	162.1	0.52	1.12	10.36	3246	390	78
WB598	F	2412	71.4	51.4	230.4	0.51	1.42	17.52	6235	509	162
WB599	F	1136	32.3	22.1	119.7	0.13	0.57	9.21	3324	267	113
WB601	F	1915	62.2	60.2	132.7	0.35	1.06	12.33	6153	464	82
WB602	M	2153	48.7	67.9	240.9	0.32	0.93	12.18	5401	539	83
WB605	F	935	26.0	21.4	86.3	0.30	0.61	6.35	6631	230	117
WB608	M	1413	40.3	53.3	108.3	0.27	0.92	10.53	1130	240	125
WB623	F	1849	54.3	46.5	164.7	0.25	1.07	16.31	4232	439	49
WB628	M	3629	105.3	153.5	264.5	1.43	2.53	20.43	9693	608	137
WB629	F	3275	117.9	104.2	287.5	0.31	2.29	24.27	6854	955	96
WB641	F	1898	48.0	52.7	138.3	0.25	0.33	10.58	2930	365	34
WB644	M	2014	60.7	66.2	208.5	0.37	1.17	10.26	5607	350	197
WB656	F	1696	42.3	50.3	140.3	0.34	0.95	8.99	2854	289	37
WB715	M	1435	40.5	53.6	133.3	0.20	0.66	8.21	1199	343	42
WB784	M	1048	32.5	22.1	123.5	0.19	0.43	7.11	14307	235	83
WB804	M	1863	41.3	66.6	177.7	0.30	0.78	9.66	2135	293	20
WB809	M	1826	33.9	58.3	169.3	0.37	0.71	4.59	1778	183	53
WB813	F	1954	47.3	49.0	154.7	0.43	1.11	9.77	2042	283	133
WB814	F	1416	41.0	41.7	145.0	0.44	0.95	7.46	2025	340	54
WB823	F	1833	49.2	53.9	154.3	0.50	1.11	9.75	3814	317	112
WB846	F	1689	50.1	45.6	91.3	0.39	1.03	9.34	2703	213	50
WB856	F	2778	64.7	114.1	228.5	0.59	1.32	12.40	7690	403	71
WB894	F	1143	29.7	39.4	81.9	0.21	0.56	4.20	857	274	130
WB910	M	985	25.1	45.6	85.1	0.21	0.94	14.27	1127	435	21
WB935	F	2379	64.1	78.2	232.9	0.87	1.45	14.15	6273	505	181
WB123	F	1169	32.4	42.9	104.2	0.11	0.55	7.13	2303	194	100
WB132	F	1161	35.4	31.1	106.9	0.24	0.73	8.41	4004	266	87
WB161	M	1750	55.3	44.2	72.6	0.28	0.92	11.92	2370	314	29
WB332	F	2540	64.0	68.2	227.7	0.34	1.22	14.24	8335	332	72
WB930	F	1403	45.0	57.9	100.5	0.23	0.99	12.10	2943	284	21
Averages		1726	48.1	55.3	157.1	0.35	0.96	10.00	4293	338	69
Jewish											
WB-17	F	2567	50.5	76.7	214.4	0.35	0.97	10.70	7658	359	87
WB-21	F	1990	58.6	56.9	163.5	0.49	1.31	11.81	2287	569	51
WB-30	F	1288	41.5	41.9	117.8	0.27	0.56	10.04	2642	318	46
WB-59	F	1743	44.2	42.1	165.7	0.38	1.09	13.10	3451	369	84
WB-76	M	2649	55.3	87.0	232.3	0.61	1.54	16.70	4829	567	83
WB-87	M	2546	51.1	64.6	232.8	0.27	0.94	10.40	4559	565	84
WB101	F	1671	45.7	49.4	172.7	0.40	1.01	10.61	5239	358	100
WB110	F	1178	35.0	29.3	107.1	0.40	0.93	7.25	3256	285	83
WB112	M	1040	31.9	39.2	84.5	0.39	0.83	8.88	1431	169	25
WB113	F	1848	52.5	83.9	126.6	0.42	1.16	12.36	4585	356	84
WB136	F	1789	45.6								

TABLE III - Continued

Jewish (continued)

Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)
WB438	M	1854	59.0	55.3	202.5	0.45	1.24	14.23	7132	321	410	171
WB439	M	2154	84.2	93.9	185.2	0.49	1.54	17.86	8691	400	338	53
WB441	M	2471	96.1	81.8	295.4	0.55	1.20	10.40	3858	338	300	38
WB450	F	2615	58.0	71.5	237.5	0.44	1.22	15.10	23708	483	501	103
WB547	F	1951	48.0	62.4	183.0	0.55	1.30	10.00	2671	323	384	40
WB561	M	1024	27.4	39.4	119.5	0.13	0.53	6.28	2439	156	127	50
WB563	M	1303	54.8	34.5	123.9	0.36	0.98	10.48	6074	233	340	38
WB565	M	1641	58.2	38.8	177.4	0.44	1.13	12.32	8631	334	576	115
WB751	M	2594	65.0	80.0	275.2	0.55	1.41	10.93	8014	378	558	99
WB774	M	2223	69.4	59.1	241.5	0.44	1.34	15.47	7911	460	487	78
WB-97	F	2280	58.1	60.5	194.6	0.49	1.32	11.11	4874	404	350	98
WB-98	F	1878	47.7	53.6	176.4	0.38	1.03	8.09	3323	322	306	64
WB926	M	2158	57.9	70.0	209.5	0.59	1.31	14.18	10974	390	623	106
WB927	M	1951	62.2	64.2	193.5	0.51	1.23	11.26	6107	307	383	92
Averages		2069	55.2	61.2	195.9	0.45	1.17	12.59	7034	378	383	113

Lithuanian

WB-56	M	1745	56.3	53.2	182.3	0.43	1.16	11.20	4190	320	397	60
WB-52	F	2259	44.5	68.5	248.2	0.39	0.94	11.04	2874	354	253	38
WB299	F	1423	26.8	38.1	137.1	0.25	0.72	7.49	9187	211	248	73
WB332	F	1575	42.7	46.4	163.3	0.44	0.96	7.99	1426	304	279	35
WB377	F	2059	43.7	73.2	214.3	0.41	0.88	6.58	3170	188	198	39
WB383	F	2651	78.9	77.2	217.1	0.51	1.31	19.30	14008	656	574	134
WB384	F	1241	28.3	32.2	114.0	0.31	0.66	5.79	1792	219	71	58
WB386	F	1869	44.0	47.3	178.7	0.41	0.99	9.71	2442	290	334	97
WB388	M	1290	31.1	30.6	131.3	0.15	0.53	6.33	1971	116	97	0
WB395	M	2619	51.5	98.4	267.5	0.47	1.12	11.21	7084	307	316	51
WB471	M	2141	58.4	76.1	192.9	0.35	1.45	9.85	6288	503	474	36
WB537	F	3213	71.7	111.0	241.4	0.87	1.58	17.29	4680	347	444	117
WB538	F	2098	48.0	62.9	177.0	0.30	0.96	10.49	2401	349	240	67
WB563	M	1230	39.2	42.3	105.2	0.25	0.77	9.30	1881	190	180	73
WB570	F	1691	54.4	43.2	144.2	0.09	0.83	11.69	1084	474	170	47
WB579	F	2005	54.0	59.3	183.6	0.41	1.11	11.51	2162	433	273	84
WB631	F	1249	47.5	37.6	113.5	0.12	0.70	9.98	692	311	113	10
WB640	F	2058	60.9	50.2	184.8	0.55	1.47	13.92	3035	505	280	153
WB680	F	1095	29.5	38.3	100.5	0.16	0.55	7.53	1412	193	132	21
WB684	F	2470	64.1	64.4	222.0	0.54	1.49	15.06	8250	608	336	170
WB685	F	2470	69.8	65.9	214.5	0.41	1.62	16.50	2433	431	282	19
WB689	M	1735	75.6	68.0	199.5	0.27	1.30	18.45	4753	586	398	104
WB788	F	2389	65.3	64.6	205.9	0.54	1.37	22.64	7323	546	510	70
WB834	M	1453	46.5	55.3	127.1	0.42	0.92	7.51	2467	324	280	78
WB839	M	2993	48.8	58.1	202.3	0.30	0.92	10.31	3205	288	325	72
WB844	F	3155	81.8	98.1	279.6	0.77	1.34	19.73	5649	749	588	90
WB157	F	1258	32.2	46.5	103.4	0.17	0.57	7.99	1463	326	219	26
WB-14	M	1510	46.7	36.2	158.5	0.21	0.85	10.55	3196	459	224	114
Averages		1963	51.7	59.0	178.2	0.39	1.10	11.59	3995	366	294	69

Polish

WB-23	F	2149	58.9	66.1	167.1	0.60	1.41	10.94	15252	513	536	86
WB-39	F	1929	51.2	45.1	184.4	0.41	1.12	11.58	5195	420	325	73
WB-75	F	1799	51.9	66.6	246.7	0.75	1.37	15.44	4977	437	528	52
WB300	F	1874	42.7	49.1	174.1	0.37	0.91	7.66	1208	293	234	47
WB321	F	1561	28.4	46.5	143.2	0.17	0.62	10.60	4786	290	299	56
WB329	M	2239	46.5	71.2	236.8	0.36	1.04	12.83	2803	323	301	34
WB334	M	1430	36.5	43.5	146.9	0.32	0.85	13.06	5510	249	170	93
WB371	F	1696	47.1	48.9	137.3	0.28	1.03	13.07	2466	336	173	60
WB373	M	2501	55.5	75.3	272.2	0.68	1.34	12.18	3336	406	433	66
WB376	M	1599	39.9	46.1	161.9	0.26	0.74	7.80	2411	243	248	36
WB381	F	1430	28.2	33.5	144.0	0.11	0.52	8.55	1510	174	47	60
WB382	F	2144	44.0	65.4	183.5	0.33	0.97	11.41	4161	411	243	62
WB391	M	755	33.9	22.2	97.0	0.13	0.57	6.92	2997	214	67	63
WB394	M	2141	55.1	79.1	217.1	0.42	1.10	10.53	3371	254	210	56
WB395	M	1556	39.8	56.9	215.4	0.16	0.70	9.73	2365	221	27	40
WB398	F	1022	32.1	29.8	77.9	0.11	0.57	8.31	1499	219	67	62
WB412	F	2879	61.2	94.1	195.8	0.53	1.38	15.71	3277	343	351	53
WB457	F	1745	51.1	53.7	183.1	0.29	1.02	13.07	5671	332	213	94
WB460	F	1368	25.7	37.0	162.4	0.13	0.46	6.71	2456	195	40	96
WB465	F	1233	29.9	35.0	134.2	0.12	0.59	6.34	1388	178	53	11
WB478	M	2845	66.5	129.6	226.2	0.62	1.47	12.97	5332	367	434	46
WB489	F	2870	82.3	102.6	219.7	0.52	1.52	14.36	19011	384	659	113
WB493	M	2411	61.4	94.7	235.7	0.62	1.39	14.37	2726	635	403	77
WB499	F	1336	36.3	32.5	94.1	0.13	0.59	8.18	2742	323	237	28
WB505	M	1833	43.5	80.6	138.3	0.43	1.00	10.14	3767	273	331	28
WB506	M	775	26.3	28.3	77.3	0.31	0.87	3.74	949	178	161	40
WB508	F	2414	42.4	53.1	248.7	0.40	0.91	10.36	2443	230	263	89
WB516	F	1121	26.1	27.4	105.4	0.30	0.65	5.09	863	197	157	41
WB524	F	2043	60.5	61.3	193.2	0.37	1.03	11.00	2537	333	290	55
WB528	M	1881	53.5	53.7	201.4	0.31	0.83	14.58	4280	429	403	80
WB541	F	1317	41.8	28.9	126.2	0.17	0.74	9.02	2567	343	143	117
WB545	M	1694	45.2	66.2	140.1	0.40	0.94	7.90	2291	333	249	13
WB548	F	1951	47.1	71.0	134.3	0.46	1.08	8.99	2469	343	317	54
WB551	M	1896	51.5	64.4	203.2	0.36	0.94	10.65	5773	380	393	66
WB560	M	1894	51.5	60.3	201.2	0.20	0.81	9.50	1165	199	238	11
WB576	F	1365	38.6	29.9	133.6	0.13	0.71	12.83	4297	362	63	71
WB584	F	2241	49.1	87.4	173.1	0.16	0.39	7.73	680	214	280	66
WB590	F	2459	57.4	91.0	165.6	0.44	1.24	13.05	3882	390	282	76
WB592	M	2765	57.5	88.3	288.5	0.40	1.25	15.84	3421	498	480	60
WB727	M	2228	60.5	83.2	175.4	0.67	1.40	16.78	3792	583	394	98
WB757	F	2291	55.2	59.0	178.0	0.54	1.38	13.70	8760	335	380	173
WB761	M	1605	43.2	59.4	139.4	0.27	0.87	12.44	3494	384	290	65
WB765	M	2311	52.5	100.7	178.9	0.27	0.97	11.79	2710	468	221	20
WB785	F	2716	57.5	101.5	231.9	0.38	1.12	13.48	4937	398	287	29
WB786	F	2009	43.2	67.5	201.9	0.25	0.84	11.66	5870	376	313	48
WB790	F	2069	61.4	53.2	182.8	0.29	1.10	10.98	2232	249	180	80
WB804	M	2855	64.7	83.3	313.3	0.47	1.30	13.36	2278	478	403	68
WB821	F	2411	48.9	88.8	175.8	0.43	1.12	14.04	1769	356	239	54
WB822	F	1730	51.5	87.3	151.0	0.14	0.73	8.61	1185	233	145	9
WB827	M	2506	49.1	89.0	247.2	0.41	0.98	8.96	3587	318	237	53
WB882	M	2221	60.3	75.2	212.4	0.47	1.22	13.65	4384	454	504	88
WB885	M	1834	42.1	63.2	177.1	0.30	0.95	10.79	4058	336	279	49
WB889	M	1343	34.3	48.9	126.3	0.35	0.74	5.27	2248	142	213	17
WB896	F	4338	131.3	91.4	387.4	1.03	2.59	24.40	5612	73	763	142
WB950	F	2804	51.1	112.6	182.1	0.38	1.10	15.41	9365	296	318	84
WB-21	M	1260	29.1	47.0	119.0	0.14	0.52	6.41	2208	205	93	33
WB-99	F	2809	76.8	74.6	246.9	0.64	1.79	17.11	5813	643	516	105
WB100	F	1712	56.5	59.2	159.9	0.71	1.35	8.47	2932	459	385	48
WB144	M	3024	86.1	60.7	192.3	0.49	1.31	16.66	2647	642	593	46
WB165	M	2511	63.3	86.7	188.7	0.44	1.47	19.10	5681	576	300	98
WB166	M	3044	75.9	96.5	240.2	0.43	1.7	24.37	5588	784	369	113
WB171	F	2367	69.1	74.9	188.4	0.49	1.29	11.85	2330	301	367	49
WB180	F	1383	38.5	38.8	160.0	0.16	0.55	7.78	700	344	369	68
WB182	F	1641	43.8	44.9	180.1	0.51	1.04	9.07	4160	344	369	68
WB183	F	2151	52.2	56.9	195.2	0.59	1.21	9.80	2777	353	358	53
WB185	F	2263	57.6	79.8	162.9	0.58	1.30	9.17	2916	354	358	53
WB365	F	2640	71.2	81.0	244.2	0.38	1.42	19.10	7118	487	263	51
WB-74	F	2326	60.0	79.6	206.2	0.40	1.21	13.36	5344	485	422	58
WB589	F	1426	42.6	47.5	129.9	0.37	0.93	8.99	2641	255	270	49
Averages		2026	50.4	63.9	184.2	0.39	1.04	11.60	3885	351	290	62

TABLE III - Continued

Musical

Case No.	Sex	Calories Energy	Protein	Fat	Carbo- hydrate	Calcium	Phos- phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)
W1000	F	2241	71.7	75.3	150.3	0.20	1.18	14.39	953	519	209	22
W1001	F	960	19.0	32.8	104.4	0.14	0.41	4.70	798	170	127	38
W1002	F	1414	26.4	46.9	146.3	0.23	0.59	4.55	1324	143	134	11
W1003	F	1297	29.4	32.9	124.3	0.22	0.54	5.83	1437	129	124	17
W1004	F	1033	28.1	36.5	101.3	0.32	0.51	3.49	1005	323	231	8
W1005	F	1261	37.2	37.8	96.7	0.27	0.50	8.57	2776	323	231	40
W1006	F	2233	60.2	87.9	227.4	0.1	1.22	11.56	3969	451	247	93
W1007	F	2478	53.7	87.4	244.4	0.34	1.00	13.04	1356	353	299	66
W1008	F	2444	54.1	68.3	191.4	0.22	0.90	12.47	1909	574	329	84
W1009	F	1076	32.1	34.1	100.1	0.12	0.54	7.49	1993	214	30	63
W1010	F	955	35.7	22.3	95.1	0.09	0.55	5.56	478	242	197	39
W1011	F	1759	47.1	53.3	139.4	0.34	1.23	15.70	2643	537	327	83
W1012	F	1033	27.7	29.3	73.4	0.35	0.53	3.39	1099	186	87	11
W1013	F	1342	34.2	42.2	102.3	0.09	0.58	9.51	2953	199	87	56
W1014	F	1406	41.2	41.7	141.3	0.14	0.57	10.23	3734	213	274	93
W1015	F	1078	47.1	45.5	179.2	0.17	0.77	11.33	1501	303	37	84
W1016	F	1281	21.5	39.3	140.0	0.20	0.53	5.44	2028	249	100	92
W1017	F	1590	52.5	55.5	148.0	0.39	1.39	10.36	2081	337	290	37
W1018	F	2136	67.0	87.1	184.7	0.36	1.39	11.26	3848	447	342	47
W1019	F	708	24.2	34.5	73.5	0.07	0.31	3.82	1585	92	3	13
W1020	F	3313	70.3	102.1	252.2	0.44	1.53	20.50	3064	525	492	130
W1021	F	2754	65.7	77.1	214.4	0.58	1.33	14.21	7287	438	433	144
W1022	F	2840	62.2	91.0	223.7	0.43	1.22	14.31	3590	489	372	74
W1023	F	2793	51.4	108.7	234.5	0.43	1.08	11.70	5053	230	292	93
W1024	F	2248	50.0	105.0	272.3	0.46	0.93	10.44	4991	224	277	53
W1025	F	2495	69.9	94.3	244.9	0.70	1.51	17.19	6937	558	558	113
W1026	F	1866	47.9	56.3	202.3	0.20	0.98	10.39	2631	330	248	81
W1027	F	2201	60.5	79.9	197.4	0.48	1.37	12.43	3136	410	414	208
W1028	F	1153	40.3	26.3	129.9	0.31	0.56	12.34	4995	254	210	70
W1029	F	2653	67.0	74.7	228.3	0.30	1.15	14.37	3013	351	260	56
W1030	F	1789	37.1	61.3	174.3	0.36	0.92	8.26	1749	391	296	50
Averages		1824	47.1	59.9	167.5	0.30	0.91	10.30	3065	330	239	68
Scotch												
W1037	F	1399	31.8	52.7	115.2	0.20	0.50	8.15	1596	365	203	5
Serbian												
W1034	F	1314	47.2	7.7	101.3	0.30	0.92	5.10	2024	244	277	83
Slovak												
W1015	M	3360	82.6	117.9	314.0	0.76	1.75	17.50	7720	733	276	73
W1032	F	1214	31.4	43.9	109.4	0.11	0.34	4.21	1750	129	89	37
W1025	F	1383	31.3	44.6	141.3	0.15	0.39	6.63	1125	171	143	16
W1004	F	2291	60.0	77.7	220.2	0.35	1.31	15.35	2555	350	360	98
W1010	M	475	12.7	7.5	61.2	0.11	0.23	3.21	920	112	43	32
W1019	M	1197	45.7	39.7	160.3	0.26	0.73	6.37	1739	295	47	45
W1034	F	2108	50.3	51.3	202.4	0.27	1.00	12.23	1324	211	143	105
W1009	M	1509	41.0	45.4	154.1	0.15	0.76	11.33	3477	307	307	103
W1077	F	1303	44.3	36.0	94.7	0.34	1.00	10.36	3335	336	333	50
W1022	F	1626	44.4	38.8	159.7	0.53	1.50	9.78	5981	407	564	82
W1021	F	1568	41.3	36.6	161.6	0.70	3.17	15.08	7247	337	337	79
W1057	M	1916	44.3	44.3	201.6	0.20	0.79	10.23	3722	301	210	115
W1053	M	1152	23.1	35.6	117.0	0.23	0.70	12.34	3570	307	307	56
W1069	F	2403	51.8	76.1	186.0	0.33	1.21	11.20	2170	406	406	86
W1077	F	1153	25.9	30.8	156.7	0.11	0.50	6.38	723	177	177	14
W1037	F	1426	38.1	50.1	156.7	0.25	0.86	6.24	3254	250	250	56
W1067	M	2417	44.8	90.3	227.7	0.30	1.27	11.30	3998	474	471	96
Averages		1685	42.9	64.2	167.7	0.33	0.91	9.76	3544	320	245	72
Swedish												
W1056	F	2413	50.0	85.0	174.6	0.51	1.30	9.30	5710	470	363	77
Syrian												
W1063	M	1295	40.2	32.1	97.7	0.28	0.74	1.50	2126	201	222	20
W1044	M	1306	34.7	47.4	117.4	0.17	0.62	1.44	3228	201	166	26
W1000	F	2990	73.5	113.6	166.7	0.45	1.36	14.33	3775	377	292	44
W1012	F	2703	54.6	76.7	159.8	0.70	1.15	17.71	5677	417	349	104
W1021	F	3636	107.0	137.0	278.4	0.61	1.31	14.86	2169	426	541	101
W1024	F	3063	84.4	100.0	234.7	0.61	1.31	14.86	2169	426	541	101
W1024	F	2626	69.9	73.4	244.3	0.71	1.35	14.86	2169	426	541	101
W1039	F	1125	28.3	31.6	117.6	0.25	0.64	6.25	4259	250	250	35
W1042	F	1616	45.8	47.9	165.3	0.15	0.70	11.11	1742	302	177	14
W1043	F	1155	36.9	40.4	123.0	0.39	0.70	6.38	11681	300	169	106
W1046	F	2707	53.5	55.2	222.8	0.27	1.23	10.87	2850	217	280	129
W1046	F	2124	41.0	47.6	161.0	0.24	0.89	6.40	7623	277	246	97
W1053	M	2247	65.7	101.0	231.3	0.55	1.32	10.23	3722	307	307	103
W1068	M	3230	73.2	142.5	239.3	0.73	1.56	10.23	3722	307	307	103
W1057	F	2750	68.7	80.1	205.1	0.55	0.73	10.23	3722	307	307	103
W1059	F	1861	55.4	51.6	161.2	0.30	0.66	10.23	3722	307	307	103
W1065	F	1406	34.4	49.1	133.7	0.22	0.57	5.54	1554	3.5	179	35
W1066	F	2393	55.6	112.7	151.8	0.54	1.23	11.00	3507	336	346	61
W1075	F	2732	57.0	72.9	136.0	0.17	1.01	12.00	4227	428	2.1	37
W1076	F	1842	53.6	55.2	186.5	0.33	1.24	16.57	3654	652	70	203
W1077	F	1575	53.5	52.5	155.7	0.24	0.90	12.76	2233	410	319	46
W1050	F	1933	51.1	63.2	190.1	0.48	1.22	9.53	1940	323	234	125
W1054	F	2571	61.4	87.6	230.0	0.66	1.88	15.40	11504	602	574	94
W1073	F	2188	51.1	54.5	205.2	0.36	1.10	12.40	2658	327	350	140
W1077	F	2394	62.5	79.0	215.0	0.62	1.75	12.19	2835	335	408	39
W1078	F	1551	75.6	70.1	277.7	0.50	1.78	15.15	12240	464	614	125
W1071	F	1920	43.4	65.1	156.6	0.50	1.04	11.50	2178	558	374	25
W1024	F	1582	36.2	50.3	168.5	0.35	0.99	7.43	2603	261	254	25
W1013	F	2110	54.2	61.1	177.1	0.38	0.75	11.04	4553	417	301	112
W1062	F	3164	81.6	126.7	195.3	0.26	1.45	16.31	4642	511	396	83
Averages		2166	57.3	74.2	184.9	0.41	1.15	12.13	4512	470	316	81
Ukrainian												
W1027	M	1659	40.3	66.2	176.2	0.41	1.00	5.75	1908	511	203	13
W1021	F	1227	25.2	28.6	124.5	0.16	0.54	9.17	1966	275	70	102
W1039	F	2064	74.3	92.6	276.1	0.48	1.57	15.23	4491	671	466	77
W1058	F	1741	49.4	56.8	166.3	0.34	1.10	12.76	3201	450	292	100
W1076	F	1741	35.5	56.1	122.4	0.38	1.13	12.21	5378	444	417	97
W1033	F	1656	47.1	57.3	177.1	0.25	0.75	5.78	3675	276	187	87
W1061	F	1766	49.0	55.6	169.1	0.25	0.89	11.03	3567	278	180	171
W1054	M	2610	46.5	115.7	209.3	0.29	0.83	5.77	3636	517	310	44
Averages		1909	46.4	63.8	163.7	0.35	1.00	11.21	3631	429	260	85

TABLE III - Continued

Welsh											
Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Ascorbic Acid (Vitamin C)
WB346	M	2241	81.3	103.7	241.5	0.36	1.79	15.48	12165	256	105
WB468	F	2101	25.9	23.3	194.1	0.29	0.43	7.11	8814	220	100
WB494	F	2101	45.3	36.3	191.5	0.37	1.08	11.84	2240	383	49
WB566	F	1544	42.5	42.3	138.4	0.40	1.03	10.00	1686	350	31
WB588	M	2259	55.1	78.7	222.3	0.33	1.36	13.39	3564	289	30
WB589	F	1035	33.0	28.4	119.0	0.22	0.76	7.24	1068	232	31
WB572	M	1628	31.9	32.5	167.1	0.13	0.59	5.39	1064	236	13
WB687	M	3321	98.4	123.1	318.3	0.57	1.32	20.13	4266	703	369
WB670	M	1599	37.4	46.9	131.5	0.36	1.15	12.08	1061	498	48
WB695	F	1460	36.5	34.8	137.7	0.35	0.91	10.00	2243	351	37
WB713	M	2117	30.7	34.0	138.4	0.30	1.35	11.72	1545	317	72
WB714	M	2179	61.0	79.9	188.3	0.50	1.49	13.22	3935	393	440
WB725	F	2350	60.7	66.5	204.0	0.36	1.45	13.00	3709	377	30
WB748	F	1855	44.9	62.1	188.2	0.37	1.07	7.81	2310	301	58
WB820	F	2024	50.5	55.1	185.9	0.43	1.17	12.76	5104	433	38
WB825	M	3484	60.4	141.3	353.3	0.48	1.40	15.38	7997	415	109
WB719	F	2710	65.3	72.9	242.3	0.37	1.55	15.06	3977	756	140
Averages		2113	54.2	69.4	204.3	0.47	1.10	12.12	4175	430	85
American-Austrian											
WB516	M	1046	28.7	33.1	103.4	0.11	0.50	7.40	1198	330	35
American-Dutch											
WB929	M	1869	37.7	49.9	221.2	0.30	0.74	7.87	3784	241	60
American-English											
WB512	F	1631	38.3	53.8	158.3	0.38	0.55	5.48	1496	294	34
WB726	F	855	31.1	28.3	125.5	0.27	0.57	7.04	1553	236	21
Averages		1243	35.0	41.0	141.9	0.33	0.76	7.76	1525	265	28
American-German											
WB452	F	2887	74.5	86.4	256.5	0.55	1.65	16.34	4579	559	45
American-Irish											
WB-4	M	1970	63.0	82.2	185.3	0.71	1.45	10.36	6277	381	77
WB-41	F	1981	57.2	52.2	195.5	0.37	1.39	12.24	2399	271	58
Averages		1926	60.1	67.2	175.3	0.54	1.27	11.30	4333	331	68
American-Negro											
WB-51	F	1446	38.5	44.5	158.7	0.22	0.79	7.44	1752	264	61
WB106	F	1818	42.2	69.0	182.2	0.43	0.73	10.38	2302	250	59
WB107	F	1329	31.2	36.2	130.2	0.36	0.58	5.36	4598	149	21
WB120	F	1961	59.3	67.7	131.5	0.48	1.27	13.10	2998	536	40
WB121	F	2877	65.4	71.7	241.9	0.49	1.45	13.43	4918	406	74
WB135	F	1029	30.5	42.3	116.1	0.23	0.68	7.37	3855	192	13
WB137	M	1461	34.4	50.1	152.9	0.44	0.91	7.90	3459	392	48
WB138	M	1024	25.3	25.2	123.3	0.25	0.53	5.33	4510	202	52
WB432	M	2463	69.3	87.7	218.3	0.48	1.20	14.35	6650	595	69
WB619	M	2573	62.2	85.4	249.0	0.49	1.29	11.36	3304	445	70
WB627	F	1616	46.9	47.3	191.6	0.45	1.03	15.40	12212	296	104
WB-19	F	1693	51.5	34.4	167.2	0.31	1.00	10.71	2071	482	66
WB609	M	1711	48.9	49.7	141.1	0.37	1.39	14.99	1120	391	87
WB104	F	1711	43.5	50.5	191.4	0.64	1.09	6.87	6104	299	67
Averages		1751	46.6	54.7	171.5	0.40	1.00	10.99	4997	359	60
American-Polish											
WB925	M	2344	59.5	80.7	218.2	0.58	1.43	11.16	4449	431	37
American-Slovak											
WB582	F	2340	72.7	74.3	170.5	0.38	1.39	16.30	13993	644	53
American-Welsh											
WB803	M	1599	36.9	53.3	165.4	0.28	0.72	6.34	1641	225	38
WB928	M	2219	52.1	64.2	241.5	0.36	1.36	13.19	3528	451	84
Averages		1904	46.0	59.0	203.5	0.32	0.99	10.02	2585	338	61
Austrian-Polish											
WB830	F	1560	48.1	55.7	134.3	0.29	0.93	10.15	6520	444	75
Bohemian-Italian											
WB649	F	3193	68.9	68.0	338.3	0.30	1.21	19.31	3930	664	372
Dutch-English											
WB399	F	2137	50.9	72.3	187.7	0.38	1.08	13.24	3164	410	64
WB519	F	2294	61.4	96.3	201.6	0.37	1.31	14.70	7964	474	84
WB723	F	3124	60.0	107.3	287.0	0.54	1.53	16.46	7987	605	100
WB760	F	2074	45.7	64.7	218.9	0.32	0.82	11.03	2882	331	40
WB836	M	1398	37.3	49.3	197.8	0.25	0.65	8.52	1846	250	29
WB838	F	1422	39.1	54.8	192.5	0.32	0.73	6.79	1879	199	18
WB840	F	1607	34.4	34.0	170.2	0.21	0.73	5.88	2002	296	61
Averages		2112	47.0	68.5	199.4	0.40	1.01	11.09	3883	366	73
Dutch-German											
WB128	F	1548	46.5	61.1	181.7	0.28	0.87	12.13	2978	678	103
WB116	F	1843	45.5	52.8	189.1	0.21	0.84	11.87	2032	559	76
WB654	F	3579	84.9	110.8	291.9	0.33	1.36	25.30	7532	58	127
WB974	F	2443	61.2	75.4	250.8	0.42	1.23	14.00	4845	588	60
WB977	F	1805	57.8	55.1	134.0	0.56	1.42	16.27	4015	385	76
Averages		2304	59.2	71.0	203.5	0.37	1.14	15.66	4945	430	88

TABLE III - Continued

Dutch-Irish												
Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)
WB308	F	1513	50.5	72.7	197.0	0.39	1.10	15.59	11453	597	314	136
WB309	F	1400	47.0	108.5	399.8	0.59	1.73	22.23	7043	785	521	98
WB310	F	1890	45.8	88.5	149.2	0.45	0.94	9.04	3199	386	381	60
WB311	F	1835	49.5	49.2	169.4	0.29	1.06	11.97	2651	382	215	82
WB312	F	1835	49.5	49.2	169.4	0.29	1.06	11.97	2651	382	215	82
WB313	F	1976	52.5	100.0	261.4	0.90	1.99	15.51	12198	1878	567	118
WB314	F	1655	55.5	42.0	155.4	0.26	0.82	9.29	1110	295	185	24
Averages		2179	57.6	66.6	217.1	0.45	1.25	13.70	5758	634	330	80
Dutch-Italian												
WB109	F	2306	55.7	72.3	188.9	0.35	1.04	12.26	3471	410	287	65
Dutch-Polish												
WB-5	M	2300	72.0	86.8	203.8	0.22	1.15	12.57	4105	387	275	78
Dutch-Scotch												
WB348	F	3089	55.4	85.1	285.0	0.51	1.55	12.06	3783	536	393	83
WB349	M	1800	44.5	66.8	172.3	0.36	1.01	12.08	4089	299	240	103
Averages		2455	55.0	74.9	228.7	0.44	1.28	12.52	3936	418	317	93
Dutch-Welsh												
WB159	F	2154	55.9	55.4	192.7	0.38	1.16	12.70	2970	451	302	58
WB160	F	2240	57.4	79.0	208.8	0.81	1.54	15.78	4144	601	484	84
WB161	F	2317	76.5	108.7	270.8	0.59	1.72	15.91	5179	693	569	89
WB162	F	1835	49.5	49.2	169.4	0.35	1.32	25.93	2697	713	363	50
WB163	F	1743	49.1	37.1	175.0	0.40	1.04	11.58	1663	335	225	34
WB164	F	1791	43.4	50.2	195.2	0.38	0.90	8.91	2198	285	266	73
WB165	F	1799	41.8	74.2	133.3	0.35	0.88	9.36	2244	325	250	27
WB166	M	2028	65.5	115.5	308.3	0.48	1.31	15.28	3653	565	390	44
WB167	M	2367	45.4	99.7	209.4	0.25	0.92	10.06	2597	310	154	49
Averages		2374	56.6	76.2	215.2	0.42	1.21	14.06	3040	474	339	58
English-Dutch												
WB-24	F	1988	51.0	61.4	175.2	0.58	1.29	10.94	5113	360	323	57
WB168	F	1160	34.2	50.4	125.2	0.23	0.70	7.31	1656	223	156	36
WB169	F	1423	30.1	34.2	141.2	0.23	0.68	8.98	8002	432	73	101
Averages		1527	36.4	42.1	147.6	0.35	0.69	9.08	4924	338	197	65
English-German												
WB170	F	2229	55.5	65.0	187.8	0.83	1.27	10.34	4751	516	438	111
WB171	F	2251	49.3	76.4	219.8	0.57	1.25	12.31	3281	369	357	53
WB172	F	2316	58.1	97.0	184.0	0.57	1.43	13.43	2992	531	422	35
WB173	F	224	55.0	84.1	224.4	0.45	1.21	14.24	3942	440	392	44
WB174	F	214	54.4	84.4	184.4	0.58	1.10	10.53	7293	413	377	124
WB175	F	2147	70.5	93.9	195.3	0.60	1.33	14.23	3077	556	501	41
WB176	F	2113	46.5	59.0	198.3	0.23	0.87	11.17	3516	271	302	34
Averages		2224	56.2	74.4	53.1	0.51	1.25	12.49	4103	432	399	63
English-Irish												
WB177	F	1820	53.5	64.3	170.9	0.41	1.12	13.27	1821	452	257	70
WB178	F	2244	58.4	105.4	219.2	0.41	1.21	13.65	2850	730	356	91
WB179	F	2337	55.0	80.1	203.0	0.38	0.88	7.77	5445	345	289	70
WB180	F	1943	42.7	70.7	183.3	0.34	0.93	9.01	2626	383	258	25
Averages		1991	52.8	74.7	194.1	0.39	1.01	11.23	3111	470	235	67
English-Jewish												
WB408	M	2476	72.8	71.7	254.4	0.67	1.67	18.69	6004	576	652	140
English-Welsh												
WB-55	F	2108	57.7	72.8	211.0	0.74	1.57	11.47	5232	322	438	26
WB181	F	1400	37.5	45.1	142.0	0.30	0.79	7.84	2717	295	249	33
WB182	F	1937	47.5	50.5	186.1	0.34	0.97	10.84	2714	440	282	59
WB183	F	1412	56.2	97.2	284.5	0.38	1.13	13.89	2932	414	251	50
WB184	F	2631	77.5	96.3	112.7	0.38	0.96	9.37	3499	290	230	55
WB185	F	2338	55.3	82.7	208.4	0.75	1.75	16.36	4110	635	546	76
WB186	F	2003	48.1	82.7	208.4	0.31	1.08	10.59	4514	564	436	40
WB187	F	2003	48.1	82.7	208.4	0.31	1.08	10.59	4514	564	436	40
WB188	F	1835	49.5	49.2	169.4	0.29	1.06	11.97	2651	382	215	82
WB189	F	1835	49.5	49.2	169.4	0.29	1.06	11.97	2651	382	215	82
Averages		1934	51.3	63.2	185.3	0.41	1.10	11.20	4007	390	290	57
German-American												
WB147	F	2316	57.5	87.0	195.7	0.55	1.34	15.16	3271	754	397	38
WB148	F	2328	55.3	84.4	220.7	0.73	1.49	15.10	7156	409	427	166
WB149	M	1893	50.1	68.3	176.3	0.38	1.19	10.51	2169	360	385	43
Averages		2180	60.3	78.7	197.1	0.61	1.34	11.62	4199	504	403	82
German-Dutch												
WB147	F	1959	47.1	48.5	169.2	0.28	1.01	12.31	5130	423	294	86
WB148	F	2344	46.2	93.7	212.5	0.25	0.91	9.39	4099	323	211	39
WB149	F	3183	72.7	101.0	315.7	0.31	1.36	23.31	4461	659	443	76
Averages		2469	55.1	81.1	232.5	0.38	1.15	15.17	4563	482	316	67
German-English												
WB150	F	2397	56.9	52.2	236.0	0.40	1.32	17.34	6792	633	419	130
WB151	F	2820	57.4	97.5	282.0	0.58	1.42	12.76	5419	578	498	70
WB152	F	2701	51.3	129.6	277.5	0.56	1.74	17.14	4922	593	487	91
WB153	F	2446	55.5	82.5	179.5	0.42	1.36	16.94	3662	526	296	60
Averages		2839	65.5	89.7	243.9	0.52	1.46	16.05	5199	683	423	88

TABLE III - Continued

German-Greek

Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)
W3446	F	2094	49.8	49.3	208.1	0.44	1.15	8.04	8281	480	617	124

German-Irish

W3359	M	1870	41.3	61.4	180.2	0.38	0.98	22.50	10403	394	314	51
W3355	M	1431	39.3	49.6	145.2	0.44	0.91	7.37	2368	308	285	77
W4229	M	3289	74.5	133.3	278.4	0.48	1.38	18.21	8018	596	430	83
W3603	M	1909	48.3	54.2	207.4	0.24	0.82	10.11	2721	273	53	91
W3606	F	2936	75.5	111.3	188.5	0.58	1.33	18.38	8643	438	438	110
W3615	F	2148	53.3	87.3	192.6	0.58	1.30	10.65	8243	458	467	58
W3886	M	1820	46.3	65.8	183.8	0.35	0.97	10.43	3354	280	117	43
W3604	M	1753	39.9	53.7	187.0	0.21	0.78	10.14	8789	290	110	68
W3932	F	2358	67.9	82.5	203.5	0.62	1.40	13.94	2872	501	410	37
W3938	F	2680	67.0	74.9	228.9	0.54	1.31	17.11	2127	346	378	69
Averages		2198	55.4	72.3	196.3	0.44	1.19	13.98	4824	406	299	69

German-Lithuanian

W3697	F	2008	57.3	66.6	188.7	0.56	1.35	11.04	4398	363	443	119
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German-Polish

W4458	F	1757	44.5	58.9	155.1	0.20	0.90	13.66	2307	530	258	45
W3681	F	1776	66.1	61.1	145.5	0.27	1.10	14.10	2907	343	283	21
Averages		1767	55.3	59.0	140.3	0.24	0.95	13.38	2607	437	271	33

German-Scottish

W3534	F	2228	44.3	73.7	141.0	0.27	0.98	10.11	2407	293	212	31
W3623	M	2471	73.1	95.0	193.0	0.36	1.80	13.74	7013	680	449	100
W3708	M	2866	61.2	103.3	268.0	0.51	1.30	13.78	5012	435	330	63
Averages		2521	59.7	90.7	200.7	0.55	1.25	12.54	4811	469	370	61

German-Swedish

W3886	F	3094	62.7	95.1	258.2	0.52	1.39	13.94	5236	617	419	53
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German-Welsh

W3928	M	1974	45.0	49.3	234.6	0.29	0.93	13.95	6013	548	213	149
W3530	F	2757	61.4	81.6	237.5	0.38	1.32	14.21	3870	840	343	69
W3683	F	2219	51.7	61.6	199.0	0.49	1.24	14.80	2863	421	321	71
W3842	M	3080	80.7	118.3	281.3	0.55	1.22	30.98	3036	771	510	56
W3853	M	1516	48.4	63.5	109.4	0.50	1.07	8.08	2851	335	370	40
W3857	F	3282	66.6	127.4	220.5	0.50	1.48	16.77	3816	611	491	90
W3890	M	2196	52.3	86.9	203.0	0.55	1.12	8.07	2368	334	289	27
Averages		2432	57.7	84.1	209.3	0.47	1.28	15.51	3546	551	361	73

Irish-Dutch

W3655	F	3374	68.1	106.0	283.9	0.39	1.45	22.31	7813	656	369	134
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Irish-English

W3600	F	2320	64.2	70.0	236.0	0.52	1.50	14.66	8924	435	430	177
W3733	M	2023	55.6	70.0	185.0	0.66	1.35	12.55	3141	480	394	43
W4449	F	1981	45.0	61.5	180.2	0.44	1.14	11.89	3802	524	356	124
Averages		2101	55.0	67.2	193.7	0.54	1.33	12.97	5322	473	393	115

Irish-German

W3352	M	3965	92.6	151.0	370.8	0.58	1.25	21.41	10088	616	357	71
W3418	F	2753	64.5	74.5	250.5	0.52	1.33	17.47	7721	597	739	109
W3435	F	1760	37.8	58.3	176.8	0.20	0.75	11.81	3910	323	288	68
W3495	F	1680	37.8	44.4	145.0	0.17	0.67	9.88	1009	278	228	70
W3550	F	1378	40.8	39.9	141.0	0.50	0.99	8.98	3891	370	347	79
W3801	M	1800	49.7	51.6	188.6	0.32	1.04	13.74	4397	581	408	98
W3859	F	3041	65.7	106.3	288.0	0.62	1.50	13.60	5722	519	490	81
W3977	F	1702	48.7	34.5	295.0	0.84	0.97	7.60	958	333	280	87
W3939	F	1832	40.4	27.2	169.4	0.20	0.87	10.00	1313	348	273	88
W3289	F	3031	58.9	123.3	193.9	0.59	1.21	13.97	6436	663	279	171
Averages		2258	53.6	72.1	216.2	0.40	1.14	12.64	4723	465	369	91

Irish-Jewish

W3909	M	1609	43.8	53.7	180.2	0.46	0.98	8.30	3724	309	393	60
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Irish-Lithuanian

W3172	F	1881	43.9	64.4	113.9	0.23	0.88	9.50	5112	400	362	83
W3303	F	2127	58.4	73.5	151.4	0.47	1.34	17.54	3974	493	420	97
Averages		2004	50.2	79.0	132.2	0.35	1.11	13.52	4543	447	391	85

Irish-Polish

W3138	M	1500	46.5	31.5	190.0	0.18	0.83	12.08	1539	442	201	69
W3326	M	3543	68.9	127.0	305.6	0.55	1.48	17.04	5344	429	489	86
Averages		2422	57.7	79.3	247.8	0.37	1.15	14.56	3942	436	335	68

Irish-Scottish

W3914	F	2657	56.6	74.7	237.7	0.27	1.03	11.18	3360	558	143	82
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Irish-Slovak

W3941	M	1770	37.1	63.6	191.2	0.41	0.87	7.99	2438	286	219	25
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TABLE III - Continued

Irish-Swiss												
Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)
WB745	M	1485	80.1	88.4	278.0	0.98	1.28	11.89	4888	582	287	89
Irish-Welsh												
WB771	F	1768	85.5	85.5	248.7	0.88	1.00	11.30	2483	381	284	38
WB770	F	1828	86.7	78.4	178.3	0.88	0.95	11.44	8780	688	271	88
Averages		1809	81.6	88.8	161.0	0.81	0.97	11.37	4627	505	286	67
Italian-Polish												
WB808	F	2222	85.4	85.5	188.8	0.88	1.01	15.87	4651	356	225	40
Lithuanian-French												
WB807	F	1850	81.1	86.7	200.9	0.85	1.46	14.37	2082	585	408	87
Lithuanian-German												
WB807	F	2047	84.8	86.1	199.8	0.84	1.11	11.84	2189	513	318	101
Lithuanian-Polish												
WB811	F	1838	48.4	47.7	185.4	0.48	1.12	9.70	3048	259	330	51
WB814	F	1790	44.1	53.9	183.8	0.44	0.86	8.68	1882	310	350	25
Averages		1808	45.3	55.8	184.5	0.46	1.04	9.19	2464	285	340	38
Lithuanian-Russian												
WB875	M	2139	80.4	74.4	193.7	0.85	1.16	11.70	2556	301	242	
Lithuanian-Slovak												
WB940	M	1798	48.2	82.6	169.3	0.80	1.03	8.08	1911	321	258	
Polish-French												
WB795	F	2774	81.1	72.7	281.3	0.88	1.21	13.31	3109	499	308	217
Polish-German												
WB801	M	1949	47.9	85.7	191.9	0.37	1.08	13.84	6497	371	203	148
Polish-Greek												
WB791	F	1821	88.0	88.8	140.7	0.48	0.83	7.76	2592	288	247	30
WB796	M	2140	88.8	93.1	154.0	0.80	1.24	11.56	4031	468	376	38
Averages		1781	88.4	77.8	147.4	0.42	1.04	9.66	3312	377	312	34
Polish-Irish												
WB899	F	2141	85.8	81.2	180.3	0.38	1.18	14.60	3756	536	423	72
WB813	F	2400	83.3	71.8	193.8	0.61	1.48	15.30	4898	433	450	120
WB876	F	1884	41.9	47.9	148.2	0.31	0.91	10.85	2481	354	254	19
Averages		2076	53.6	60.3	173.1	0.43	1.19	13.59	3698	441	369	70
Polish-Italian												
WB111	M	2638	84.9	97.2	304.1	0.88	1.34	13.75	15733	516	647	110
WB370	F	2134	38.4	60.9	200.7	0.19	0.72	8.34	1787	231	148	35
Averages		2636	46.2	79.1	253.4	0.39	1.03	11.04	8749	375	398	72
Polish-Lithuanian												
WB127	M	1288	84.0	81.2	140.2	0.35	0.85	6.02	1157	481	286	34
Polish-Mexican												
WB497	F	1783	48.8	46.7	193.8	0.34	0.79	9.68	1655	364	203	74
WB513	F	2118	83.3	84.2	184.4	0.35	0.98	11.70	2137	429	261	84
Averages		1940	47.9	50.5	194.0	0.25	0.88	10.69	2048	397	227	79
Polish-Slovak												
WB117	F	2275	80.4	91.2	196.3	0.17	0.97	12.55	5968	499	344	78
WB481	M	3924	70.5	143.8	328.5	0.89	1.78	15.98	8708	408	432	60
WB498	F	2401	68.1	76.9	188.7	0.45	1.54	14.46	4870	432	487	181
WB580	F	1082	27.2	39.7	85.3	0.16	0.58	7.81	2233	225	130	69
WB893	M	1505	43.7	44.8	176.8	0.14	0.74	10.87	608	276	180	27
Averages		2246	61.7	79.1	204.3	0.40	1.10	12.35	4080	368	323	81
Polish-Ukrainian												
WB486	F	2206	88.4	79.9	148.4	0.23	1.10	13.21	2840	513	229	87
Polish-Welsh												
WB897	F	1821	47.0	57.8	141.5	0.30	1.00	16.43	1944	383	234	30

TABLE III - Continued

Russian-Dutch

Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)
WB518	F	2678	63.5	81.1	218.1	0.85	1.56	19.03	3084	209	523	98

Russian-English

WB594	M	2588	61.1	115.1	187.1	0.56	1.30	13.51	6399	496	389	58
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Russian-German

WB551	M	1433	36.4	50.0	146.1	0.36	0.81	7.75	6017	271	217	77
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Russian-Irish

WB469	F	1723	58.4	49.1	189.9	0.25	1.13	16.66	10497	226	147	123
WB578	F	1144	29.2	27.5	105.7	0.14	0.90	6.33	1385	186	100	38
Averages		1434	43.8	38.3	137.8	0.20	0.97	11.50	5936	206	120	81

Russian-Lithuanian

WB542	F	2980	66.9	89.2	254.1	0.49	1.38	13.79	4759	500	467	174
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Russian-Polish

WB530	F	1983	55.6	46.3	184.3	0.28	0.98	11.56	1607	621	299	90
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Russian-Welsh

WB466	F	1291	37.9	30.8	147.5	0.26	0.35	8.78	3424	394	143	109
WB663	F	2086	62.7	81.5	185.5	0.59	1.31	12.73	4621	658	458	51
Averages		1689	50.3	56.2	156.5	0.43	1.08	11.26	4023	516	301	80

Scotch-American

WB-27	F	3454	91.0	73.9	193.9	0.62	1.67	21.72	3424	1030	569	64
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Scotch-Irish

WB907	M	2655	51.1	87.4	264.8	0.32	1.04	13.21	2066	439	302	58
WB933	F	4191	69.3	150.6	327.5	0.56	1.48	15.23	5396	440	322	36
Averages		3423	60.4	119.0	296.2	0.44	1.26	14.22	3636	439	312	47

Slovak-German

WB397	F	1964	47.4	48.7	178.9	0.22	0.32	9.17	1829	466	168	33
WB483	F	1795	51.1	71.4	145.5	0.28	0.84	11.51	3598	418	252	40
Averages		1880	49.3	60.1	162.2	0.25	0.63	10.34	2713	442	220	37

Slovak-Irish

WB358	F	3807	60.5	132.9	277.4	0.58	1.95	22.64	4781	764	550	
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Slovak-Lithuanian

WB142	M	2077	43.4	53.4	183.5	0.30	0.96	9.93	3317	341	268	
WB143	M	2870	52.5	72.4	153.5	0.31	0.36	13.70	3585	360	297	50
Averages		2474	48.0	67.9	168.6	0.35	0.91	10.77	3451	351	283	59

Slovak-Greek

WB485	F	1595	41.3	55.1	153.4	0.34	0.99	10.96	4103	354	320	31
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Slovak-Polish

WB151	M	1307	31.7	20.2	151.7	0.12	0.51	6.89	869	223	66	111
WB152	M	845	29.5	20.4	97.2	0.10	0.44	4.50	748	154	63	31
WB153	F	1200	35.8	29.7	134.1	0.21	0.61	6.08	1213	184	170	39
WB322	F	1303	41.6	32.2	162.1	0.27	0.86	8.03	1703	284	210	34
WB342	F	1829	51.0	65.2	178.1	0.34	1.02	10.88	3002	282	283	46
WB574	F	1637	48.3	51.3	122.7	0.41	1.07	10.44	1587	523	307	29
WB771	M	2176	46.5	66.9	226.1	0.30	0.94	11.46	1809	340	280	59
Averages		1471	41.0	44.0	153.4	0.28	0.78	8.16	1564	280	197	50

Slovak-Russian

WB476	F	2867	59.3	103.9	230.2	0.35	1.15	13.64	4731	711	344	50
WB482	M	2133	57.1	79.5	284.7	0.71	1.38	19.40	4899	581	444	76
WB546	M	1406	46.2	43.7	142.0	0.25	0.80	8.64	1588	308	226	39
WB595	F	1526	58.1	64.0	134.8	0.49	1.25	13.79	3938	382	397	106
WB604	M	2441	57.4	78.0	250.0	0.80	1.27	17.44	7287	651	534	94
Averages		2135	55.6	73.8	208.4	0.46	1.17	14.68	4424	513	393	73

Slovak-Welsh

WB771	F	1199	18.7	35.3	117.2	0.08	0.29	4.00	984	149	37	7
WB573	M	1366	28.2	45.5	130.6	0.01	0.43	4.63	1149	154	36	7
Averages		1283	23.7	40.4	131.4	0.04	0.36	4.32	1067	152	37	7

Swedish-English

WB346	M	2270	62.0	68.0	201.0	0.75	1.46	12.33	5074	480	376	118
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TABLE III - Continued

Ukrainian-Hungarian											
Case No.	Sex	Calories Energy	Protein	Fat	Carbo-hydrate	Calcium	Phos-phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Ascorbic Acid (Vitamin C)
WB527	M	1474	45.8	51.7	188.6	0.21	0.76	8.82	2839	238	77
Welsh-American											
WB598	M	1814	48.8	48.4	188.7	0.38	0.98	10.20	10727	351	85
Welsh-Dutch											
WB453	F	1916	42.5	55.6	170.2	0.28	0.86	11.19	2890	253	30
Welsh-English											
WB430	M	881	39.0	50.4	93.8	0.42	0.84	7.78	10080	380	81
WB441	M	3748	50.9	138.5	341.3	0.58	2.08	24.58	10649	618	117
WB522	M	1882	44.8	84.7	186.0	0.42	1.04	9.72	3182	398	17
WB525	M	1993	44.7	83.0	207.9	0.30	0.92	11.68	4487	450	79
WB795	F	2187	50.1	73.1	188.8	0.40	1.08	9.29	1783	450	242
WB802	M	2170	59.7	88.4	191.4	0.42	1.24	12.42	4927	571	452
WB818	F	1747	48.5	50.4	149.6	0.47	1.06	8.17	3141	302	84
WB831	F	2079	50.3	84.9	187.5	0.71	1.41	10.10	2976	398	85
Averages		2096	53.0	71.2	189.4	0.46	1.22	11.72	5168	447	68
Welsh-German											
WB385	M	1588	31.7	51.0	129.9	0.20	0.63	7.58	2486	244	69
WB470	F	2022	49.0	38.7	102.8	0.35	1.14	11.88	2884	705	132
WB571	F	1634	46.8	61.1	164.4	0.36	1.04	10.30	3356	318	61
WB597	M	2323	41.8	83.5	222.9	0.47	1.09	9.76	2060	312	46
WB608	M	1883	48.2	59.9	189.5	0.32	0.86	11.01	3303	378	54
WB810	F	2189	61.4	74.4	188.8	0.67	1.49	21.50	3654	586	81
WB788	F	2247	49.7	76.1	224.9	0.43	1.05	10.23	5801	271	33
Averages		2011	46.5	60.7	175.7	0.38	1.04	11.75	3685	403	68
Welsh-Irish											
WB903	M	1506	43.4	43.6	161.1	0.35	0.86	8.05	2536	340	60
Welsh-Jewish											
WB445	F	2360	68.7	85.1	203.7	0.54	1.50	18.97	5961	511	69
Welsh-Philippino											
WB782	M	2809	79.5	79.4	257.4	0.58	1.61	18.59	12096	638	39
Welsh-Polish											
WB664	F	2750	61.7	91.4	210.4	0.43	1.31	14.90	12324	569	80
WB643	F	2900	64.5	87.5	245.8	0.61	1.54	16.67	4137	646	474
Averages		2825	64.6	89.5	227.1	0.52	1.43	15.79	8231	618	483
Welsh-Russian											
WB782	F	1732	42.5	50.9	114.2	0.27	0.83	10.04	3135	312	73
Welsh-Slovak											
WB156	F	2700	60.1	90.7	199.8	0.80	1.66	13.69	3834	420	51

T A B L E I V
SUMMARY OF NUTRIENT INTAKE OF
CHILDREN OF MAJOR RACIAL AND NATIONAL BACKGROUNDS

Nationalities	Calories Energy	Protein	Fat	Carbo- hydrate	Calcium	Phos- phorus	Iron	Vitamin A	Thiamin (Vitamin B ₁)	Riboflavin (Vitamin B ₂)	Ascorbic Acid (Vitamin C)
American	2157	51.5	72.5	196.2	0.43	1.11	12.13	4072	421	336	76
English	2314	57.4	74.2	213.2	0.50	1.28	13.75	5386	458	365	91
German	2410	57.6	78.8	221.0	0.46	1.24	13.58	4993	447	345	75
Irish	2349	56.5	76.5	211.5	0.48	1.24	13.28	4853	457	363	84
Italian	1728	48.1	55.8	157.1	0.35	0.98	10.00	4293	338	266	69
Jewish	2089	55.2	61.2	195.9	0.45	1.17	12.59	7034	378	383	113
Lithuanian	1963	51.7	59.0	178.2	0.39	1.10	11.69	3995	386	294	69
Polish	2026	50.4	63.8	184.2	0.38	1.04	11.50	3885	351	290	62
Russian	1824	47.1	59.9	167.5	0.30	0.91	10.30	3065	330	239	68
Slovak	1685	42.9	64.2	167.3	0.33	0.91	9.65	3525	323	245	72
Syrian	2166	57.3	74.2	184.9	0.41	1.15	12.13	4812	470	316	81
Welsh	2113	54.2	69.4	204.3	0.47	1.19	12.12	4175	430	341	85
American Negro	1751	46.6	54.7	171.5	0.40	1.00	10.99	4987	358	293	60
English Welsh	1934	51.3	63.2	185.3	0.41	1.10	11.20	4007	390	298	57
German Irish	2198	55.4	72.3	196.3	0.44	1.19	13.82	4824	406	299	69
Irish German	2258	53.6	72.1	216.2	0.40	1.14	12.84	4723	465	369	91

TABLE V - INTAKE OF MAJOR FOOD GROUPS AND SUB-GROUPS BY CHILDREN OF DIFFERENT RACIAL AND NATIONAL BACKGROUNDS (GRAMS)

American	MILK				POTATOES		TOMATOES CITRUS FRUITS		GREEN, LEAFY AND YELLOW VEGETABLES							Dried Beans, Peas & Nuts	OTHER VEGETABLES AND FRUITS			
	Milk	Cheese	Cream	Cream Soup	Potatoes	Sweet Potatoes	Tomatoes	Citrus Fruits	Tomato Soup	Lettuce	Peppers	Spinach	Other Green Vegetables	Carrots	Other Yellow Vegetables		Dried Fruits	Corn	Other Vegetables	Other Fruits
WB-7	180				118		29						14			29		57	101	14
WB-8	871				103		80						80			2				800
WB-9	270				101		43						56					29	14	
WB-13	231				87		43						43	14				14	14	148
WB-14	250				71		21						43			51		14	14	39
WB-15	251	15			87		14						14					29	14	148
WB-16	244				143		87	14					46			13		84	14	157
WB-19	554	4			114		43			27	29	14	14			74		14	48	807
WB-23	368	13			104		29	14		20			4	29		19				80
WB-26	373				107		21						14			43		11		180
WB-30	248	17	25		140								140			105		21		317
WB-32	266				137		80	51					14			43		14		89
WB-40	476	4			104		29			7			14			9		14	15	89
WB-43	91				127		4	80			15		15	15			100			50
WB-53	320	30			143		159			11			38			29		14		
WB-57	396				104		17						30	29		43				
WB-58	369				121		17						30	29		43		14		
WB-60	358				71		89		22				43	14						
WB-63	144				86		46	94					43					88	14	71
WB-64	483				84	24	61			11	7		43			23		16		129
WB-65	309		16		177		29	13					80							34
WB-66	260	4			188		14						86							21
WB-69	180				122		29			3			97							60
WB-72	231				250	49	100						14	29		7		29		200
WB-73	181				113		80			7		14	14					114	14	21
WB-76	436		114		127		118				15		15	15				29		
WB-77	806				71		117	7		4	14		43	29		29		86	17	211
WB-80	360				169		157			10	17		50					86	6	193
WB-81	554	22			243		64	13					100			7		129	56	43
WB-82	594	4			387		114			3			17					43		68
WB-85					71								43					29		
WB-88	489				34		51		45				21							
WB-93	188				71								43							
WB-94	188				87								43							
WB-95	483				71								21							
WB122					43		43	17					18							
WB125	197	4	38	46	43		43						21					29	14	43
WB284	806				13								89			100				
WB287	188				136	61	3						43							
WB314	444	20			137		17	22										14	15	11
WB325	424				150		89	36	22	10			7							
WB336	411				87		89	80										14	14	31
WB337	807	1			79		100	50		1			43							
WB339	184				43								29					43		29
WB340	314				800		29						130							
WB343	154	26			17		43	29	22	3			36	14				29	14	34
WB344	360				27		43	64					43					29	56	139
WB345	817				71		29	71		7			36					14		57
WB346	437	4			171		71	100		57			43							
WB350	303				171		43						87							
WB354	366	8			100	24	100	54					14					29	14	14
WB361	247	24			120		78	9	32	29	7	14	50	14				29	26	80
WB362	491				121		14			6			29					24	16	480
WB409	499				82		21			3	7	14	14					157	14	11
WB411	225	13	8		71		36			3			29							
WB508	261				43		21			6			29	29						
WB507					100								29							
WB535	334	4			243								100							
WB539	230				86		43						14							
WB515	540				114		71						46	29				14	14	89
WB547	180				180								29							
WB548	306				120								11							
WB550	304				127		43	14					29							
WB700	632	13	8		114							21	87	14				14	14	144
WB702	143	47			87								82					36		291
WB703	360				190		48						48					10	15	24
WB705	287				77								80							
WB713	397	13	2		158		39	43		3		14	30					30		178
WB725	519	17	24		126		70	87					84	26				14		86
WB726	239	4			171		89	133		14			26	29						
WB739	280				150		70	41		3		14	15					29	29	16
WB740	760	4			118		51	14	22				46					14		18
WB741	494				136		36	87					29							
WB743	461				86	24	41	94		13			36	14				14	15	36
WB746	308	4			167		29						7	157				43		
WB752	419				100		80			5			80	80						180
WB756	38				87		3						7					57	43	14
WB805	398				107	46	43	71												
WB819	77				65		14	14												
WB822	76				114					1			4					14		
WB871	413	80			117		14			7		14						29	7	14
WB876	184	30	4		126		14					14						14		29
WB879	203				100		29			1			36	29						
WB884	243	13			143		14	87		14		14	14	43						
WB-36	189	17			127		114	14		11		14	36	43						
WB-38	387				114		14	31		4		14	38	43						
WB-83	64	17			191		131					20	81	43						
WB-35	244	10	4		86		71	87					57							
WB150	248				113		71	2												

TABLE V - Continued

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TABLE V - Continued

English	MILK				Cream Soup	POTATOES		TOMATOES CITRUS FRUITS			GREEN, LEGUMY AND YELLOW VEGETABLES							Unacid Beans, Peas & Nuts	OTHER VEGETABLES AND FRUITS			
	Milk	Cheese	Cream	Potatoes		Sweet Potatoes	Tomatoes	Citrus Fruits	Tomato Soup	Lettuce	Peppers	Sprouts	Other Green Vegetables	Carrots	Other Yellow Vegetables	Dried Fruits	Corn		Other Vegetables	Other Fruits		
W8361	387	34	8		71		29	41				23	7				14		300			
W8362	369				68		29	43														
W8403	387				229		71		22	79		136	114		14	29	29	71				
W8404	310	11			143		14	14		8		43	29		6	1	14	59				
W8434	384	4	5		100		56	39	22			38	29		14			14				
W8435	384	4	5		86		29	29	22			29	14		32		14	43				
W8444	617				129		17	29	22			43			43		14	87				
W8445	90		12		150		50								15		100	178				
W8446	77	8			100		45	71							14			58				
W8473	197	4			117							58	17	17	14			43				
W8498	647	4			82		79			1		43	14		87			64				
W8721	430	15			50		50	230	79			80						150				
W8724	514				86		43					86					100	136				
W8725	780				50		50					100					50	180				
W8731	77	5			43		17	45				29					14	43				
W8732	573				136		15	134	45	7	30	30	38	37		15	14	78				
W8733	386		3		89		14	87										84				
W8744	106				57			14				66						29				
W8745	78		24		243							14					57					
W8746	191	3			71		17	22				21	14				14	40				
W8755	319		3		129	49	29	57	22			107	14		14		29	54				
W8756	484	9			150		17	149				29	29					14				
W8757	446				57							32			43							
W8758	444	30	8		100		73	83	22	10		38	14				14	38				
W8760	687	4			300		50	60		7		43	21				14	78				
W8769	594	4			143		31	45				43						81				
W8777	78				78		30					15	34	15		14	78	30				
W8801	239	3			200		43	89	67									114				
W8822	311	54			87		106					43	14				71	151				
Averages	385.5	6.2	2.7		112.2	1.7	25.2	49.4	12.6	3.2	1.3	2.6	41.6	13.2	3.0	7.6	3.0	14.0	73.1			
German																						
W8341	489		2		100		100	29				29	50	5			29	16	314			
W8342	121				206		16	16									20	16				
W8343	393	4			71		71	14	22	1			14						39			
W8347	1053	4			61	43	56	59		9			14						71			
W8379	193				21		21			1			29						50			
W8397	229	3	2		114		29	89					43					29	78			
W8400	103			32			86			6			46	14					136			
W8406	802	17			114		56	29					14						100			
W8407	483	9			56		31	49		6			150									
W8412	548				43								25	29		14		29	117			
W8423	310		40		157		43						56						43			
W8424	511				60		294						37	15			15		29			
W8425	11		5		100		250						50					35	100			
W8426	286				189			7														
W8434	317			34	97		6			6			72	22	15		20		152			
W8435	150			22	114		25	111				14	7	14		4	14		21			
W8436	409				571		25	111											38			
W8439	443				104		14	29		2			29						56			
W8450	489				129			51					14				14	29				
W8477	51				115								56						93			
W8478	86	11	54		86					1			56						79			
W8479	254	3			129			56		1			19				14		86			
W8484	77	4			114		29	14					36	43			43		14			
W8493	103	4			71		14						14									
W8494			16		150								29	50		107						
W8495	90		19		77		50											50	75			
W8496	344	4			114	24		53				50	150				150		100			
W8497	429				186		14	29		3			7			133		14	29			
W8498	29			22	24		29												51			
W8499	274		16		150		90			7	25		150				14	29				
W8500	1123				93		56						29	43		14	43	29	14			
W8501	57				222											130			32			
Averages	316.9	1.9	4.5	4.3	117.9	2.7	28.5	35.5	0.6	1.3	7.4	2.3	38.7	10.1	1.7	15.7	1.3	10.9	9.8	54.9		
Greek																						
W8112	693				77		50	50				50	50	50					76			
W8113	341				86		14	26		4		29	14						43			
W8114	281		3	32	71		14			8		14	14									
W8115	254				57		86			6			71				29		38			
W8116	254				57		86			6			71				29		38			
W8117	254				57		43	74		14		14	14	14		29		57	50			
W8118	254				171		14					29	43						21			
W8175	277				100		100			15			100						150			
Averages	360.6		1.3	8.0	97.0		55.4	20.5		6.0	17.0	47.1	8.0				3.6	7.3	7.1	51.4		
Hungarian																						
W8175	480				200							50					150		175			
Irish																						
W8112	599				78		38	14		4		7	29				129		17			
W8113	703				83		143	57		3			99	14			14	14	32	207		
W8114	281				36		87			5			50	50				40	76			
W8115	254				50		71	14					57				14	43	71			
W8116	254				63		57	21	22				14	33								
W8117	254				100		57	100		13			41	33			100					
W8118	429				78		14	17				14	29	14					14			
W8119	103				89		14	66					60				71		100			
W8120	103				97		14	66					64				14					
W8121	103				103		91	86		7		29	84	14			14					
W8122	103				107		89	70					84						53			
W8123	103				114		114	121		1		43	84		14		14		50			
W8124	103				103		61			8			61	80	14		14		43			
W8125	103				103		71						61	29	14		14		14			
W8126	103				103		80						61	29	14		14		14			
W8127	103				103		80						61	29	14		14		14			
W8128	103				103		80						61	29	14		14		14			
W8129	103				</																	

TABLE V - Continued

[illegible][illegible][illegible][illegible][illegible]

TABLE V- Continued

[illegible]

Italian

[illegible]

Jewish

[illegible]

TABLE V - Continued

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TABLE V - Continued

Country	Cereals				Vegetables		Fruits				Other				Total			
	Wheat	Rye	Oats	Barley	Other	Other	Apples	Pears	Other	Other	Other	Other	Other	Other	Wheat	Rye	Oats	Barley
Polish																		
WB-38	354																	
WB-39	37																	
WB-40	432																	
WB-41	451																	
WB-42	689																	
WB-43	26																	
WB-44	390																	
WB-45	380																	
WB-46	494																	
WB-47	337																	
WB-48	361																	
WB-49	598																	
WB-50	425																	
Averages	388.0	5.4	4.0	4.4	88.3	4.1	41.5	66.3	6.3	2.3	1.0	5.0	28.5	13.1	0.3	4.8	7.0	11.2
Lithuanian																		
WB-51	373																	
WB-52	340																	
WB-53	531																	
WB-54	880																	
WB-55	277																	
WB-56	758																	
WB-57	337																	
WB-58	389																	
WB-59	51																	
WB-60	270																	
WB-61	540																	
WB-62	430																	
WB-63	314																	
WB-64	208																	
WB-65	469																	
WB-66	581																	
WB-67	28																	
WB-68	582																	
WB-69	498																	
WB-70	30																	
WB-71	311																	
WB-72	385																	
WB-73	103																	
WB-74	622																	
WB-75	64																	
WB-76	188																	
Averages	328.4	4.5	3.9	2.1	89.6	3.5	2.6	36.5	6.3	0.6	0.5	1.6	32.1	8.2	0.07	1.1	3.3	1.2
Polish																		
WB-77	585																	
WB-78	334																	
WB-79	366																	
WB-80	180																	
WB-81	321																	
WB-82	394																	
WB-83	211																	
WB-84	238																	
WB-85	617																	
WB-86	214																	
WB-87	155																	
WB-88	82																	
WB-89	418																	
WB-90	3																	
WB-91	26																	
WB-92	437																	
WB-93	263																	
WB-94	4																	
WB-95	840																	
WB-96	488																	
WB-97	480																	
WB-98	64																	
WB-99	280																	
WB-100	335																	
WB-101	287																	
WB-102	231																	
WB-103	313																	
WB-104	183																	
WB-105	81																	
WB-106	404																	
WB-107	439																	
WB-108	280																	
WB-109	28																	
WB-110	3																	
WB-111	445																	
WB-112	198																	
WB-113	587																	
WB-114	467																	
WB-115	316																	
WB-116	180																	
WB-117	478																	
WB-118	185																	
WB-119	132																	
WB-120	659																	
WB-121	181																	
WB-122	283																	
WB-123	283																	
WB-124	581																	
WB-125	309																	
WB-126	982																	
WB-127	180																	
WB-128	51																	
WB-129	140																	
WB-130	640																	
WB-131	625																	
WB-132	380																	
WB-133	380																	
WB-134	438																	
WB-135	31																	
WB-136	487																	
WB-137	334																	
WB-138	619																	
WB-139	186																	
WB-140	297																	
WB-141	390																	
Averages	291.3	2.5	2.3	3.8	90.7	0.3	20.6	37.0	3.2	2.2	1.0	33.3	10.5	0.6	5.7	4.2	9.0	3.9

TABLE V - Continued

MEATS, POULTRY AND FISH					FLOUR, BREAD, SOUPS, ASSORTED OTHERS										PARTY FOODS				SUGARS							MISCELLANEOUS VITAMIN CONCENTRATES			
	Beef Cuts	Ground Beef	Poultry	Fish	Meat Soup	Whole Wheat Bread	Other Bread and Rolls	Cereals	Pastaroni, Noodles and Spaghetti	Cake and Cookies	Ice	Other Desserts	Butter	Salt Pork, Bacon	Other Fats	Sugar	Jam	Jelly	Honey	Syrup	Molasses	Candy	Soft Drinks	Cod Liver Oil	Vitamin Supplements				
43	76		14	17	184		84	34	4	5		36	16																
50	157		15	9	111		96	36	9		27	36	40																
17A	33		48	10	80		183	19		88		18	4					16				8	8	86	3				
29	39	17	28		134		98	11		56		15	17			4							51						
43	4			9			118	11		30		27	39	10															
43	29				87		130	4				76																	
50	11	9	71		287		113	11		21		70				1													
23	45	88	37		111		169	9		49		26	54							17									
29	36	9	39	30	138		146	15	4	26		84	17			6							26						
21	23	9	57	70	180	4	101	38		30		28								17			26						
21	32		14	40	55		161	18		17		21	25										26						
29	30	9	29	34	87		118	18	17	32		50	5			3													
46	4	9	43	43	122		110	7	4	35	26	11	14			3				9									
28.0	43.4	4.4	19.3	19.4	89.3	0.1	116.5	18.0	7.6	29.7	27.7	32.6	13.6	0.1	1.2	0.4	0.6	0.1		1.2	0.1	0.6	6.1	0.1					
7	136			17	55		83	15		15		15	14																
57	89				74	9	133	11		21		52	52																
36	30		50	17	180		89	28	4	32		65	1			6													
71	12		7		60	9	91	19	21	25		15	47			2													
14	41				138		85			22		12																	
25	68			9	134		121	13		64					6														
25	50				129		136	4		32		171																	
22	94		58		114		263	38				46	53			13													
7	76			9	227		150	30				56	22																
7	149		15	9	91		154		4	56			3			10													
14	94				57		111			21	75																		
7	108		29		87		196	4				9	4																
14	82	9	14	37	32		36	26		11			2																
7	72				98		13	31		43			14																
25	130			17	454		140	30	30																				
29	78				132		15	15		46		35																	
64	118				75	13	75	15	47	85		9	6	4	6	2													
56	82				143		171	3	31	40	26	10																	
17.1	81.3	1.3	8.0	10.3	88.3	1.1	124.3	14.0	6.7	23.9	15.5	18.4	13.5	0.5	0.6	1.9		2.4	0.2	0.2	0.4	1.3	6.5	0.6					
43	31	9	29		89		4	30	27	68		25	16																
27	71			9	45		143	17		28		10	10																
7	159			9	22		264	13		21		20	151																
29	36			9	87		89	17	4	107			1																
43	95			9	91		65	18		13			30																
21	59				129		61	17		94	78	40	16			5													
29	50				65		88	14	4	43		44	9																
7	96				108		11					15	9			2													
21	87				175		40			54		131	15	16															
29	59				236		84	2	14	66		9				2													
7	78			9	108		9	9	4	28			53	14															
29	83				76		14	4					6																
21	96		14		127		53	4		54	94	23	6																
21	54				107		75	6		21		15	30																
21	182			9	43		171	6	4	21		15	30																
21	134				65		120	4		21		31	10																
21	17				130		133			75		17																	
50	164				32		227	30		66	24	33	1	1															
120	100				114		180	23		92		65	10			23													
12	182				87		100	20		138		20	13			10													
14	27				72		14			12			4			4													
26	43				158	18	150	18					26																
54	112				47		18						7																
26	91				312		117	13		119		19	23																
54	58			17	65		21	13		21			4																
10	61				129		139	7		54		52	17																
50	51				64		143	11	4	36			14																
34	86	22	14		141		108		8	11		21	2																
7	174				118		118			23			30																
14	45	117			89		144	12		75		26	33																
21	148				32		800	13		32		79	46																
21	118				22		62	10	17	11		52	13																
7	36				84		136			160	235																		
29	51				55		161	22		22		45	26																
14	104				87	80	21	4		34		27	21																
43	77				146		146	4		34		60	52																
143																													

TABLE V - Continued

Russian	MILK			POTATOES		TOMATOES		TOMATOES		GREEN, LEMONY AND YELLOW		VEGETABLES		OTHER VEGETABLES		AND FRUITS				
	Milk	Cheese	Cream	Cream Soup	Potatoes	Sweet Potatoes	Tomatoes	Citrus Fruits	Tomato Soup	Lettuce	Peppers	Spinach	Other Green Vegetables	Carrots	Other Yellow Vegetables	Dried Beans, Peas & Lentils	Dried Fruits	Corn	Other Vegetables	Other Fruits
WB203	81				18		13					15								
WB206	217				33		14					43								
WB301	400				14							57						50		10
WB309	334				14		14													29
WB311	219				71		14		5					29		14				14
WB314	368	17			71		14													14
WB317	193			22	129	14	6	7	7			168			10		28		36	21
WB323	240	3			71		100					33	33							
WB462	86				14							37								14
WB467	231				114	11		34				79	29							7
WB472	51				14							14								43
WB474					86		29	14				11			14					21
WB480			78		30		200													
WB488	16				86			14				71							150	
WB491	103				86			34				43					14		107	21
WB512	322				104		15	30				60							43	
WB566	206	9			76		17	57	3			21			15				21	43
WB572	378		16	22	29		14	188	9		29	91	29						129	36
WB584	684		8	29	114	49	14	55	3			21	14		28	43		14	56	14
WB587	289	9	8	29	100		31	43				21	14		28	43		14	137	14
WB593	45	64			100		100					50							300	78
WB598	630	4	64		100		100					50			50				300	78
WB599	77		32		106		117	40	7			79	43						300	78
WB604	340	13		18	86		26	79		57		36			14			143	29	7
WB601	257				100		3		1		14	21	57		14			129	29	
WB607	277	4			114		17	43	21			14	29		24				129	36
WB655	337				114		17					42			24	2				

TABLE V - Continued

LEAN MEAT, POULTRY AND FISH					FLOUR, BAKED GOODS, ASSORTED CEREALS										FATTY FOODS		SUGARS							MISCELLANEOUS VITAMIN CONCENTRATES		
	Meats	Organic	Poultry	Fish	Meat Soup	Whole Wheat Bread	Other Bread and Rolls	Cereals	Pastaroni, Noodles and Spaghetti	Cake and Cookies	Pies	Other Desserts	Batter	Salt Pork, Bacon	Other Fats	Sugar	Jam	Jelly	Honey	Syrup	Molasses	Candy	Soft Drinks	Oil	Vitamin Supplements	
30	190				138		184					15	31													
29	30				173		115	5				26	21													
28	8				32		115	10				26	22													
14	51		14		65		101	4				25	11													
14	84				65		74	13				25	11													
21	114				185		178	17				78	31													
21	118				181		100	5	147			40	20												45	
7	89				38		118	5				11	11													
110					87		89	4					3													
7	205		71		801		50	13				49	18													
21	89				38		100	5				28	16													
21	108				227		138	4				28	16													
21	111				87		107						11													
45	108				188		103		45			79	10													
14	184				65		180	9	20			78	22													
38	189				32		119	23	4			24	21													
14	101		25		77		85	11				15	3													
75	30		14		148		144	4	16			74	28													
75	38				114		775	8				52	21													
57	98		14		109		118	26				52	47													
7	102				45		175	3	17			52	13													
7	111				24		116	39	9			52	26													
38	89		45		111		111	11	4			151	17													
17.8	82.4	2.3	4.6	3.4	89.7	0.2	128.2	1.0	10.9	26.9	23.3	11.0	22.7	1.1	0.8	3.2			0.5	0.1	0.2		1.0	1.6	1.6	
30			21				148	13				38	35	21												
145	77			17	65		86	9	4	21		9	13													
35	156				32		158	27				51	34													
45	42		14		127		57	12				64	52													
9	38				128		147	13				52	18													
45	91				58		121	10				52	45													
14	52		14	17	152		175					31	26													
14	93				68		205	9				21	21													
14	99		14	27	45		68	4				45	26													
14	27				54		100	10				13														
7	64		17	14	123		74	4				35	4													
14	47				129		146	20	4			32	27													
14	41				129		111	6				21	15													
14	134				22		106	5				78	47													
28	55				32		100	26	4			12	30													
28	99		17	38	65		177	9				52	13													
17.5	66.4	3.1	5.6	5.4	83.9		113.9	10.5	0.7	28.1	24.1	18.9	14.7	0.8	0.3	1.9	0.4	0.7		3.9		0.8	4.5			
170							158					46	48													
21	78		29		32		74	15	17				16													
14	108		14				98	13	16				11													
25	148		18				175	8	15				55													
30	18						119	8	15				22													
38	818						333		350				100													
38	51		58	31			167	11				86	28													
21	129		14				164	4	21			11	16													
21	51				130		90	4	47				7													
7	70				88		127	9				76														
7	88				88		71	11					10													
21	80						188	8					60													
21	88						88	4				28	10													
14	124						175	8					15													
14	145				78		100	8	110				48													
14	115				18		179	9					21													
29	84						89	4	9				21													
38	148		45	11	38		114	4	47				35													
7	108				88		88	11					17													
7	108						185	8	88				15													
14	118				89		75	4	4				15													
14	118				49		110	47	108				15													
7	91				25		111	13	31			86	3													
29	180				38		179	25	79			81	88													
14	97				38		51	29					15													
38	11						218	16	4			86	87													
38	100						139	9	9			86	86													
28	200						127	8	88			11	76													
13.0	113.3	0.6	9.0	6.1	24.8	2.2	144.8	11.3	32.2	15.9	61.9	18.2	24.1	0.3	1.0	4.1	0.9	0.7	2.8	1.4						
7	88						108	4	4				29													
160	188						110	8				86	79													
21	74						111	11					24													
7	74						74	4					86													
45	78						148	12					86													
50	28						81	13					13													
24	78.8	2.0	7.3		98.4		181.0	11.4	0.4	14.4	2.9	14.3	28.7			1.4		1.1								

TABLE V - Continued

Ethnic Group	MILK				POTATOES		TOMATOES CITRUS FRUITS				OTHER, LEAFY AND YELLOW VEGETABLES								OTHER VEGETABLES AND FRUITS			
	Milk	Cheese	Cream	Cream Soup	Potatoes	Sweet Potatoes	Tomatoes	Citrus Fruits	Tomato Soup	Lettuce	Peppers	Spinach	Other Green Vegetables	Carrots	Other Yellow Vegetables	Dried Beans, Peas & Nuts	Dried Fruits	Corn	Other Vegetables	Other Fruits		
Welsh	100.0	1.0	1.0	1.0	100.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Averages	408.6	4.8			106.7	6.3	14.1	40.9	3.9	2.5	0.8	0.8	24.1	4.6	1.6	10.8	0.8	18.0	9.5	27.8		
American Austrian																						
Averages	100.0	1.0			100.0																	
American Dutch																						
Averages	100.0	1.0			100.0																	
American English																						
Averages	180.0	14.5			85.5		7.0	7.0					14.5		14.5	7.0					14.5	
American German																						
Averages	100.0	1.0			100.0																	
American Irish																						
Averages	358.0	23.5			44.8		45.0	45.5		4.5			29.0	7.0		9.0			18.5	80.8		
American Negro																						
Averages	307.6	2.1	0.2		69.6	5.8	16.4	24.4	3.9	3.6	0.5	9.1	45.0	8.4	2.1	10.7	7.2	9.5	12.6	28.6		
American Polish																						
Averages	100.0	1.0			100.0																	
American Slovak																						
Averages	100.0	1.0			100.0																	
American Welsh																						
Averages	218.8	4.8			107.5		3.5						28.6		24.6	14.5	7.0	7.0	14.5			
Austrian Polish																						
Averages	100.0	1.0			100.0																	
Bohemian Italian																						
Averages	100.0	1.0			100.0																	
Dutch English																						
Averages	312.3	8.0	26.0	19.4	128.3		24.7	26.3		1.3		2.0	38.0	12.3		24.9	8.4	4.1	14.3	24.9		
Dutch German																						
Averages	186.8	1.6	6.6	21.8	174.6		24.6	12.0					24.2		2.2	1.2		2.2	19.8	48.8		

TABLE V - Continued

LEAN MEAT, POULTRY AND FISH					FLOUR, BAKED GOODS, ASSORTED CEREALS										FATTY FOODS			SUGARS					MISCELLANEOUS & VITAMIN CONCENTRATES		
	Pulse Tests	Glandular Organs	Poultry	Fish	Meat Soup	Whole Wheat Bread	Other Bread and Rolls	Cereals	Macaroni, Noodles and Spaghetti	Cake and Cookies	Pies	Other Desserts	Butter	Salt Pork, Bacon	OTHER FATS	Sugar	Jam	Jelly	Honey	Syrup	Acidulants	Candy	Soft Drinks	Cod Liver Oil	Vitamin Supplements
21	113				36		107	4		28	15		10												
22	118				38		108	4		28	16		10												
14	64				34	4	148	18		28	17		10												
45	154				34		177	28		28	17		10												
21	154				34		177	28		28	17		10												
7	11				35		107	4		28	15		10												
14	96				35		107	4		28	15		10												
14	96				35		107	4		28	15		10												
29	88				35		107	4		28	15		10												
36	118				35		107	4		28	15		10												
45	118				35		107	4		28	15		10												
14	48				35		107	4		28	15		10												
7	38				35		107	4		28	15		10												
45	120				35		107	4		28	15		10												
10.4	81.6	2.1	0.8	6.2	31.3	0.2	114.1	15.2	8.3	35.9	16.4	14.3	14.2	0.6	0.7	1.5		2.0		0.4		0.06			
14	75				97		100	4		8			9					8							
11					17		208	4		28	16		31												
112					85		105	17		38	75		17					6							
29					130		121	17		10			9												
70.5				4.5	97.5		106.0	17.0	2.0	21.0	36.5	4.5	8.5	1.0	2.0			3.0		3.0					
14	126				17		212	15		11			48	29		6		3							
14	202				14		103	5	31				25	17		4									
21	54				22		109	30	24	71			11			5	2							26	
17.5	126.0		26.5	7.0	11.0		104.0	17.5	27.5	35.5			18.0	8.5	6.5	1.0								13.0	
7	100		14	9			142	5	4	21	41	55	6												
14	104		17				104	25	4	22	27	14	7												
36	123						189	21	13	11	25	13	13												
7	88						184	31	4	11	82	46	12												
15	76						184	31	4	11	82	46	12												
7	17						111	21			18	26	23												
14	17						111	21			18	26	23												
148							185	30	31	21	209		45												
107							175	18					16												
40	15		40		227		186	18			26		16												
21	80						209	18			32	9	14												
36	63		14	16	65		184	42			34		14												
15	25						184	42			34		14												
15.1	69.1	1.1	6.1	2.4	34.7		141.1	17.1	4.0	13.6	31.9	13.0	14.0	0.6	1.4	0.5	0.1	0.6		2.3	0.4	1.4	1.9		
7	94						175	13	4	11	60	30	26					10							
45	165						179		5		65	9													
7	54						142	24	4	34	61	31	22												
3.5	62.5						76.5	165.0	12.0	2.0	17.0	30.5	15.5	26.0				16.0		3.0					
36	93						139	4	9		25	13													
7	124		14	17	14.5		176		9	6			33												
30							192	4			13	17													
29	9		29				186	11			20	13													
14	76						186	11			20	13													
70							186	11			20	13													
26							186	11			20	13													
34							186	11			20	13													
26							186	11			20	13													
10.4	34.9	1.3	4.1	3.3	117.9	1.1	139.4	7.0	3.7	26.1	16.9	2.1	28.3	2.1	2.9	1.9		7.1	0.4	1.3		2.9			
14	93						188	4			51		24												
14	86						188	4			51		24												
14	20	17	114	15	45	81	130	3	9	83	85	23	23												
21	82						187	3	9	77	76	23	23												
26	100						103	17	21																
18.4	78.0	3.4	22.8	6.0	34.6	4.2	138.2	6.6	7.6	32.4	56.8	4.6	20.4	0.2	0.4	2.8					1.2		1.4	26.6	

TABLE V - Continued

[illegible]

TABLE V - Continued

MEAT, POULTRY AND FISH					FLOUR, BAKED GOODS, ASSORTED CEREALS										FATTY FOODS			SUGARS					MISCELLANEOUS & VITAMIN CONCENTRATES				
	Nucle Meats	Glaciar Organs	Poultry	Fish	Heat Soup	Whole Wheat	Other Bread and Rolls	Cereals	Pastaroni, Macaroni and Spaghetti	Cake and Cookies	Pies	Other Desserts	Butter	Salt Fat, Bacon	Other Fats	Sugar	Pan	Golly	Money	Strup	Condensed	Ready	Port Drinks	Good Mixer Oil	Vitamin Supplements		
7	36																										
7	137																										
7	89																										
7	89																										
14	89	18																									
7	89																										
6.0	89.3	2.6	4.1	5.1	66.7	26.4	123.6	28.0	4.3	21.6	10.9	12.1	22.3	0.7	3.3	4.9	0.9	7.9	0.9	0.1					6.6		
21	50																										
7	129		143	9		65	186	3																			
7	89			15		43	165	40	40	51	15	16	26	4	4	6											
14	72						114	21		61			13	2		7											
10.5	80.5			6.5		21.6	139.5	30.5	20.0	56.0	7.5	8.0	16.3	3.0	2.0	6.5											
14	130						120	4		16	12	15	6	4													
7	122		14		38		109	4	24	14		25	26														
7	131		14		35		108	15	20	12		37	37														
14	124						193	19		21		26	23														
14	41			9			125	34		21		26	23														
7	89				38		158	9		3			25														
21	89			9	32		125	30				46	35														
21	146				129		176	30		54		107	230														
17	222						242	10					53			10	13										
13.6	126.8		3.1	2.0	52.0	2.0	153.3	13.7	6.8	23.9	31.2	36.4	27.0	2.9	1.6	7.0	0.7	1.7									
4	61						85	9	4	58	26	13	3														
28	43			17	32		88	18	9		26	9		4													
7	121				115		86	11	4	27		15	11														
13.3	75.0			5.7	49.0		90.7	12.7	5.7	28.7	17.3	12.3	4.7	1.3		1.0											
7	17		17	97			41	3	9	71		52	9		2												
7	80			32			120	21	17	112		26	26		1	4											
43	176			32			181	4		11			52			4											
28	126	9	31				72	22	13	21		26	22														
7	77			93			93	19		116			16			6											
43	182			90			100	17				52	25														
29	124						136	13		73		40	13			2		11									
23.6	106.9	1.3		8.1	35.9		108.0	13.9	5.6	59.3	7.4	16.9	23.1	0.6	0.9	1.7		4.0									
14	106			45	128		30		11	26	29	23															
21	180		13				130	19	16	99		26	21			2		3									
43	41	9	9	77			186	3		22	31	25	17														
19.5	92.5	2.0		5.5	30.5	34.0	122.6	15.3	27.5	41.0	38.6	24.0	21.8	1.8	1.6	2.0	1.6										
14	110	9	14		65		106	21	9		47	23				4	3										
36	30		14	9			78	40		118		30	14														
36	51		17	97			125	21	4	11		38	9														
8	100			97			100	21		33		26	24														
7	127		29				129	11		75		47	9														
7	86						100	13	4	71		26	24														
14	140		43				134	4		86		60	36														
7	89						125	26		21		26	26														
7	89						125	26		21		26	26														
71	89	9		32			125	26		21		26	26														
17.2	82.6	0.9	6.6	4.4	32.3		130.2	17.2	2.4	38.0	25.2	19.1	19.1	2.2	0.4	1.4	1.5	1.6									
56	128						125	25				29	27														
7	36		14	9	128		125	25				29	27														
21.0	82.3		4.7	15.3	61.3		162.3	15.3		10.7	18.3	43.7	23.7	1.3		1.5	3.0	3.0									
7	117			97			83	17	9	11		26	26														
11	160						122	26		107		26	26														
8.3	126.0						122	26		107		26	26														
50	93			78	114		75			11		26	26														
7	125						122	26		107		26	26														
14.3	115.5			21.6	88.3		129.8	8.0	10.0	21.8	129.3	44.8	34.0			1.3		2.2									

TABLE V - Continued

TABLE V - continued

	MILK				POTATOES		TOMATOES CITRUS FRUITS				GREEN, LIGHT AND YELLOW VEGETABLES					Dried Beans, Peas & Nuts	OTHER VEGETABLES AND FRUITS				
German Greek	Milk	Cheese	Cream	Cream Soup	Potatoes	Sweet Potatoes	Tomatoes	Citrus Fruits	Tomato Soup	Lettuce	Peppers	Spinach	Other Green Vegetables	Carrots	Other Yellow Vegetables		Dried Fruits	Corn	Other Vegetables	Other Fruits	
Averages	366.7	8.0	3.7	7.4	114.5	3.1	7.8	44.4	11.3	1.4		1.5	21.0	9.3	1.5	13.9		2.7	14.5	13.4	
German Irish																					
Averages	366.7	8.0	3.7	7.4	114.5	3.1	7.8	44.4	11.3	1.4		1.5	21.0	9.3	1.5	13.9		2.7	14.5	13.4	
German Lithuanian																					
Averages	75.0	6.5			95.0			10.5	18.0			80.0							14.5	5.8	
German Polish																					
Averages	435.7	14.3		22.7	72.3		11.3	22.3	30.0	2.0		29.0	4.7		30.3		8.0	9.7	37.7		
German Swedish																					
Averages	367.0	5.1	2.5	3.6	168.7		16.6	21.4	6.4	11.0		56.6	7.1	1.9	9.6	2.3	6.6	3.1	88.1		
German Welsh																					
Averages	367.0	5.1	2.5	3.6	168.7		16.6	21.4	6.4	11.0		56.6	7.1	1.9	9.6	2.3	6.6	3.1	88.1		
Irish Dutch																					
Averages	583.0				151.0		19.7	54.3	40.0	1.0		48.0	5.0	10.0			14.3	26.7	56.0		
Irish German																					
Averages	342.3	0.4			138.1	4.9	61.5	40.4	10.0	0.8	1.4	7.2	24.4	5.7	7.3	1.2	8.6	14.5	64.7		
Irish Jewish																					
Averages	148.5	15.0	2.0	9.0	93.5		86.0	15.5		2.0		96.5	9.0		7.0		14.5		58.0		
Irish Lithuanian																					
Averages	148.5	15.0	2.0	9.0	93.5		86.0	15.5		2.0		96.5	9.0		7.0		14.5		58.0		
Irish Polish																					
Averages	100.0	6.5		11.0	200.0		7.0	14.5	11.0			78.5	14.5				50.0	7.0	21.5		
Irish Scotch																					
Averages	123.7				7.1							1.5					1.5		1.5		
Irish Slovak																					
Averages	123.7				7.1							1.5					1.5		1.5		

TABLE V - Continued

[illegible]

TABLE V - Continued

[illegible]

TABLE V - Continued

[illegible]

TABLE V - Continued

	MILK				POTATOES	TOMATOES CITRUS FRUITS				GREEN, LEAFY AND YELLOW VEGETABLES						Dried Beans, Peas & Nuts	OTHER VEGETABLES AND FRUITS			
	Milk	Cheese	Cream	Cream Soup	Potatoes	Sweet Potatoes	Tomatoes	Citrus Fruits	Tomato Soup	Lettuce	Peppers	Spinach	Other Green Vegetables	Carrots	Other Yellow Vegetables		Dried Fruits	Corn	Other Vegetables	Other Fruits
Russian Dutch																				
WB518	208				85		1	71	5									29	11	80
Russian English																				
WB574	1480				77		80			10		50	50				150			
Russian German																				
WB551	1260	4		65	57	24	14	29	65	3		14	36	14			14	14	14	51
Russian Irish																				
WB469	108				71	25	29	71		4		14	78	14			28	7	43	
WB578	77				71			14									28	14	9	
Averages	91.0				71.0	11.5	14.5	42.5		2.0		7.0	30.0	7.0		3.0	36.0	10.5	26.9	
Russian Lithuanian																				
WB542	1411				129		114	149		29							52			49
Russian Polish																				
WB550	1208				57		191					18					14			14
Russian Welsh																				
WB463	155				157		59	14	22			16	54				43			
WB563	608				95		3	35	25								16	16	67	
Averages	380.5				126.0		31.0	24.5	23.5			8.0	40.0				29.5	8.0	33.5	
Scotch American																				
WB-27	1669				71		28	43									131			121
Scotch Irish																				
WB507	77	930	57		129		22	14				46					21			154
WB535	255				157		22					18	14				14			3
Averages	171.0	455.0	28.5		143.0		22.0	7.0				44.5	7.0				17.5			28.5
Slovak German																				
WB597	108				86		14	9					14				14			
WB493	81				171			21				57	43							
Averages	77.5	10.5			128.5		7.0	15.0				28.5	28.5				28.5		7.0	
Slovak Irish																				
WB-56	478				77		14	21				75								
Slovak-Lithuanian																				
WB443	154				57		32	15				36						14	14	187
Averages	205.5				71.5		16.0	6.5				32.5						14.0	164.0	
Slovak Greek																				
WB485	1316	9			45		14	14				14	43				57		29	21
Slovak Polish																				
WB451					114		29					14								
WB452					34		43					29								
WB453					14		43					43								
WB454					14		43					18					14			
WB455					14		43					10	10				24	20	14	21
WB456					14		43					10	10				24	20	14	21
WB457					14		43					10	10				24	20	14	21
WB458					14		43					10	10				24	20	14	21
WB459					14		43					10	10				24	20	14	21
WB460					14		43					10	10				24	20	14	21
WB461					14		43					10	10				24	20	14	21
WB462					14		43					10	10				24	20	14	21
WB463					14		43					10	10				24	20	14	21
WB464					14		43					10	10				24	20	14	21
WB465					14		43					10	10				24	20	14	21
WB466					14		43					10	10				24	20	14	21
WB467					14		43					10	10				24	20	14	21
WB468					14		43					10	10				24	20	14	21
WB469					14		43					10	10				24	20	14	21
WB470					14		43					10	10				24	20	14	21
WB471					14		43					10	10				24	20	14	21
WB472					14		43					10	10				24	20	14	21
WB473					14		43					10	10				24	20	14	21
WB474					14		43					10	10				24	20	14	21
WB475					14		43					10	10				24	20	14	21
WB476					14		43					10	10				24	20	14	21
WB477					14		43					10	10				24	20	14	21
WB478					14		43					10	10				24	20	14	21
WB479					14		43					10	10				24	20	14	21
WB480					14		43					10	10				24	20	14	21
WB481					14		43					10	10				24	20	14	21
WB482					14		43					10	10				24	20	14	21
WB483					14		43					10	10				24	20	14	21
WB484					14		43					10	10				24	20	14	21
WB485					14		43					10	10				24	20	14	21
WB486					14		43					10	10				24	20	14	21
WB487					14		43					10	10				24	20	14	21
WB488					14		43					10	10				24	20	14	21
WB489					14		43					10	10				24	20	14	21
WB490					14		43					10	10				24	20	14	21
WB491					14		43					10	10				24	20	14	21
WB492					14		43					10	10				24	20	14	21
WB493					14		43					10	10				24	20	14	21
WB494					14		43					10	10				24	20	14	21
WB495					14		43					10	10				24	20	14	21
WB496					14		43					10	10				24	20	14	21
WB497					14		43					10	10				24	20	14	21
WB498					14		43					10	10				24	20	14	21
WB499					14		43					10	10				24	20	14	21
WB500					14		43					10	10				24	20	14	21
Averages	190.6	2.6	4.5		78.6		21.3	12.6	4.7	1.1	4.1	19.3	1.4		4.1	5.4	4.9	2.6	11.6	
Slovak Russian																				
WB476	120				178							25	50							150
WB477	540				123		110					30								75
WB478	101				123		57			29		21								5
WB479	483	3			123		43			29		21								14
WB480	520				123		43			29		21								14
WB481	520				123		43			29		21								14
Averages	346.8	0.6			171.6		33.4	8.6		11.6		5.8	39.8	15.8		11.4			14.2	76.0
Slovak Welsh																				
WB571					43												14			14
WB573					57												14			
Averages					50.0												14.0			7.0
Swedish English																				
WB445	1724	9			57		86	77				36	14						14	88

TABLE V - Continued

LEAN MEAT, POULTRY AND FISH					FLOUR, BAKED GOODS, ASSORTED CEREALS										FATTY FOODS			SUGARS					MISCELLANEOUS & VITAMIN CONCENTRATES	
Meats	Glandular Organs	Poultry	Fish	Meat Soup	Whole Wheat Bread	Other Bread and Rolls	Cereals	Macaroni, Noodles and Spaghetti	Cake and Cookies	Pies	Other Desserts	Butter	Salt Pork, Bacon	Other Fats	Sugar	Jam	Jelly	Honey	Syrup	Molasses	Candy	Soft Drinks	Cod Liver Oil	Vitamin Supplements
170				114		113	8		30		46	45		140	5									
16			9	109		118	9				25	2			1		9							
76	9	14	17	130		64	9	13	32	76	28	3			3							6	26	
43			9	88		93	9	4			25	4												
27.0	30.0	4.5	28.5	13.0	97.5		78.5	9.0	8.5	15.0	39.0	25.0	3.0		1.5							3.0	13.0	
156			17	152		82	13	9	41		13				1									
126					17	159	8		38		11													
50			9	97		53	34				7					1	1							
174		32		44		76		1	6		15				2		3						29	
102.0		16.0	4.5	70.5		65.5	17.0	5.0	3.0		11.5				1.0	0.5	2.0						14.5	
94					113	33					41													
75				136		107	33	31	35	17	13	31			12		29					34		
75					136	107	33	31	35	17	13	31			12		29					34		
10.5	27.0			63.0		161.0	22.5	15.0	110.0	21.5	6.0	78.0	2.0		9.0		14.5					17.0		
70			9	118		115	34	4	11		30	4			5	3						17		
117					136				35		5	30												
7.0	93.5		4.5	50.0		162.0	17.0	2.0	23.0		21.8	17.0			4.5	1.0						8.5		
75			13	122		147	32	30	35		27	5	3				13					2		
55		14		143		96	1		35		55	10												
14		14		109		117	7		36		58	14	11	4										
21.5	27.5		14.0	125.5		108.0	9.0		86.0		55.0	12.0	5.5	2.0								6.0	1.0	
70				295		75	21		14	26		13	10											
7	26		9	62		282			54															
7	21		51	55		125			21															
7	43		36	65		136						64	27				12							
14	57		13	68		88	9	9	11															
40	30		44	45		113	9	6	30			33	26											
29	57	20	14	32		88	14		21			7	11											
29	70		31	64		107	29		53	26	35	27	1	6										
19.0	52.0		4.9	26.3	55.4	0.6	131.4	8.7	2.1	28.6	3.7	19.9	13.4	0.1	0.9	2.6	0.3							
25	121					173	8		38		74	65												
28	55			56	75	97	30		14	78	26	40												
21	101	29	17	45		124	2		13	26	9	21												
7	74	9	9	22		144	30		13	26	11	39												
16.4	87.6	1.8	5.8	5.2	50.0	15.0	104.0	14.0		13.0	20.8	33.2	31.6			4.0	0.6						6.8	
30	26			32		111	4	4				31												
15.0	13.0			32.0		239	4	9				31												
175.0						175.0	4.0	6.5				31.0												
121				65		107	15		34		68	27												

TABLE V - Continued

	MILK				POTATOES		TOMATOES CITRUS FRUITS			GREEN, LEAFY AND YELLOW VEGETABLES							OTHER VEGETABLES AND FRUITS				
	Milk	Cheese	Cream	Cream Soup	Potatoes	Sweet Potatoes	Tomatoes	Citrus Fruits	Tomato Soup	Lettuce	Peppers	Spinach	Other Green Vegetables	Carrots	Other Yellow Vegetables	Dried Beans, Peas & Nuts	Dried Fruits	Corn	Other Vegetables	Other Fruits	TOTAL
Ukrainian																					
Hungarian																					
WE557	2				45		86						14								86
Welsh American																					
WE595	100	14			100	25				3	29	7	14		14				29	21	1
Welsh Dutch																					
WE463	50	4	24		86	29				14					14			7		43	
Welsh English																					
WE460	27				130		17	24					20	20			20	60			
WE461	20				87	21	17	31		3		21	43	36		9	9	14	43	80	50
WE462	20				89			14					14	29		43				14	
WE463	20				143			46	22				18					29	29	29	
WE464	20				100			14		7			29					29	27	21	
WE465	20				80								30							75	
WE466	20				80								29						14	7	
WE467	20				87		3	29		7			46	14		21			14	7	
Averages	278.0	4.5	3.6	2.8	82.6	2.6	8.8	23.4	2.8	2.1		2.6	31.1	12.4	5.4	9.1	1.1	7.9	26.3	30.9	8.0
Welsh German																					
WE468	100	4			86		43	86		21			21			14		14	21		14
WE469	100				171		29						43			100		43		7	
WE470	100				73			71					43					114		21	7
WE471	100				73		29	29	22				14	14	14	29		29	64	7	
WE472	100				187	24	14	34		7			11	43		57		36	29	7	
WE473	100				171		3	43		14			32	29		14		14	29	86	14
WE474	100				43	73	14									29			136	14	
Averages	275.9	10.7		3.1	103.3	13.9	18.9	37.6	3.1	6.0			17.3	12.3	2.0	30.6	4.1	30.6	12.3	48.0	9.0
Welsh Irish																					
WE475	100	13	13		79		57	51					29						43	7	
Welsh Jewish																					
WE476	100				114						29	29				57		14	50	7	
Welsh Phillipino																					
WE477	100				100		3						43					29	43	7	
Welsh Polish																					
WE478	100				100		31	29		21			43					10	43		
WE479	100				100		31	29		21			100	21		14		14	43	136	21
Averages	466.5	4.5			164.5		15.5	27.5	22.5	10.5			71.5	10.5		7.0		16.0	21.5	66.0	10.5
Welsh Russian																					
WE480	100				57								100							14	
Welsh Slovak																					
WE481	100	4			57		43			4		64				1	9	14	4	76	21

T A B L E V I

INTAKE OF MAJOR FOOD GROUPS AND SUB-GROUPS BY CHILDREN OF DIFFERENT

RACIAL AND NATIONAL BACKGROUNDS
(GRAMS)

NATIONALITIES	MILK				POTATOES		TOMATOES AND OTHER FRUITS				MEAT, BREAD AND VEGETABLES								OTHER VEGETABLES AND FRUITS				EGGS
	Milk	Cheese	Cream	Cream Soup	Potatoes	Sweet Potatoes	Tomatoes	Other Fruits	Tomato Soup	Legumes	Onions	Cauliflower	Other Green Vegetables	Carrots	Other Yellow Vegetables	Dried Beans, Peas & Nuts	Dried Fruits	Corn	Other Vegetables	Other Fruits			
American	308.7	5.5	2.6	3.9	118.4	2.3	37.2	21.7	3.6	3.9	1.3	2.0	31.3	9.5	0.9	15.9	3.4	22.1	15.9	65.3	15.3		
English	365.5	6.2	2.7	4.3	112.2	1.7	25.2	49.4	12.6	3.8	1.3	2.6	41.6	13.2	3.0	7.6	3.0	14.0	11.4	73.1	17.3		
German	314.9	1.9	4.3	4.3	117.6	2.7	23.3	35.5	9.3	1.3	1.3	2.6	33.7	10.1	1.7	16.7	1.3	10.9	9.8	54.9	2.0		
Irish	371.7	4.1	2.3	2.0	121.2	1.6	31.7	43.7	5.2	1.4	0.3	2.5	30.8	13.9	1.5	8.5	4.0	17.3	16.3	32.1	19.0		
Italian	263.0	6.1	2.3	4.4	81.1	4.7	22.1	24.3	0.7	2.3	1.1	2.3	31.7	2.4	2.1	7.8	1.1	11.3	1.2	57.7	20.7		
Jewish	265.0	3.4	4.0	4.4	83.3	4.1	41.6	35.3	6.3	2.3	1.0	3.0	29.6	13.1	0.3	4.8	7.0	11.2	10.8	88.4	28.0		
Lithuanian	329.4	4.5	3.3	2.1	89.6	3.3	21.8	36.5	6.3	0.3	0.3	1.6	22.1	18.2	0.3	0.1	1.1	3.3	1.3	70.3	17.1		
Polish	291.3	2.5	2.3	3.3	90.7	0.3	20.3	37.0	3.2	2.2	1.7	1.0	35.3	10.5	0.6	5.7	4.2	9.0	3.9	83.2	18.1		
Russian	207.3	4.0	2.3	3.4	73.5	2.4	30.1	24.7	2.7	1.7	1.2	1.4	41.2	3.9	2.9	7.7	3.4	15.0	2.7	62.3	17.3		
Slovak	237.3	2.5	2.1	1.9	94.6	1.4	9.1	27.3	2.3	3.1	0.3	7.4	26.3	2.3	3.1	6.5	4.4	4.2	3.6	38.9	17.3		
Syrian	293.0	5.1	2.6	2.7	75.1	3.3	23.9	33.5	2.1	4.3	0.5	0.3	24.1	4.3	3.1	7.7	2.2	21.0	15.8	98.2	13.0		
Welsh	408.9	4.8			103.7	3.3	14.1	40.9	3.3	3.3	0.5	0.1	43.0	3.4	1.6	10.9	0.8	18.0	9.6	27.8	19.4		
American Negro	307.6	2.1	0.2		59.6	5.3	16.4	24.4	3.3	2.2	2.0	1.4	43.0	3.4	2.1	10.7	7.2	9.5	12.6	28.0	15.1		
English Welsh	313.2	4.4	1.0	1.4	87.0		23.5	23.5	2.2	3.0		1.4	47.8	12.9	2.8	2.8		14.2	8.6	58.7	17.2		
German Irish	333.7	5.0	3.7	7.4	114.5	3.1	7.3	44.4	11.3	1.4		1.5	31.0	9.3	1.5	13.9		2.7	14.5	13.4	16.1		
Irish German	342.3	0.4			132.1	4.0	31.5	40.4	10.0	0.3	1.4	7.2	24.4	5.7		7.3	1.2	8.6	14.5	64.7	16.2		

TABLE VI - Continued

LEAN MEAT, POULTRY AND FISH				FLOUR, BAKED GOODS, ASSORTED CEREALS								PARTY FOODS			SUGAR						MISCELLANEOUS & VITAMIN SUPPLEMENTS			
Miscellaneous Meats	Staminal Organs	Poultry	Fish	Meat Soup	Whole Wheat Bread	Other Bread and Rolls	Cereals	Macaroni, Noodles	Cakes, Cookies	Pies	Other Desserts	Butter	Salt Pork, Bacon	Other Fats	Sugar	Jam	Jelly	Honey	Syrup	Molasses	Candy	Soft Drinks	Cod Liver Oil	Vitamin Supplements
31.5	1.0	2.0	5.5	25.0	0.2	129.7	12.1	5.0	37.3	10.9	17.5	23.4	2.0	3.1	2.9	0.3	2.0	0.4	0.2	0.2	1.9	7.9	0.9	0.1
97.9	4.0	4.7	3.6	41.0	0.1	129.5	18.2	3.1	45.4	20.2	23.7	23.4	0.3	0.3	4.4	1.0	2.6	0.1	1.3	2.3	2.3	0.6	0.6	0.1
104.9	2.3	5.4	53.6	2.7	158.3	14.9	4.7	70.0	26.7	22.5	22.3	23.3	0.6	1.4	3.8	0.3	1.6	0.1	0.2	0.5	4.6	14.0	0.2	0.2
89.1	1.7	6.5	7.3	43.2	0.3	150.0	15.1	5.4	31.5	17.4	27.3	23.7	2.4	0.8	4.7	0.4	1.3	0.1	1.6	3.1	3.1	8.6	0.1	0.2
71.3	1.1	3.4	4.4	57.0	1.4	115.5	5.4	15.5	18.3	13.9	12.9	11.7	0.6	1.2	1.5	0.5	0.5	0.1	0.4	0.1	1.8	6.8	0.1	0.2
43.4	4.4	19.3	19.4	89.3	0.1	116.3	18.0	7.6	23.7	27.7	32.6	13.6	0.1	1.2	0.4	0.6	0.1	0.2	1.2	0.1	1.8	1.1	0.1	0.1
31.3	1.3	8.0	10.3	88.3	1.1	124.3	14.0	6.7	23.3	15.5	13.4	13.5	0.5	0.6	1.9	0.3	2.4	0.2	0.3	0.4	1.3	1.3	0.1	0.1
37.3	3.3	1.3	6.6	78.3	1.7	135.2	13.0	3.2	34.6	18.7	26.1	21.0	0.6	0.6	2.0	0.5	0.3	0.1	0.3	0.4	1.3	1.3	0.1	0.1
32.4	3.3	4.9	3.4	99.7	0.2	123.2	1.0	10.9	26.9	22.3	11.0	22.7	1.1	0.8	3.2	0.5	0.3	0.1	0.3	0.3	1.3	1.3	0.1	0.1
113.3	0.6	9.0	6.1	24.7	3.3	144.2	11.3	32.2	15.9	61.9	13.3	14.7	0.3	0.3	1.9	0.4	0.7	2.2	1.4	1.4	0.8	4.5	1.5	0.3
31.6	2.1	0.9	6.2	31.3	0.2	114.1	10.3	2.3	35.9	15.4	14.2	14.2	0.6	0.7	1.5	0.4	2.0	0.1	0.3	0.4	0.1	1.3	1.3	0.1
99.1	1.3	6.1	2.4	34.7	0.3	141.1	17.1	4.0	13.6	31.2	13.0	14.0	0.6	1.4	0.5	0.1	0.6	0.1	0.3	0.4	0.1	1.3	1.3	0.1
92.5	0.3	5.5	4.4	32.3	0.3	130.2	17.2	2.4	33.0	23.2	19.1	19.1	2.2	0.4	1.4	1.5	1.3	0.1	0.6	0.6	1.4	1.3	1.3	0.1
96.2	3.5	7.1	4.5	48.7	0.9	134.7	15.6	3.6	47.6	11.9	12.9	22.3	0.4	0.4	2.5	0.3	1.5	0.1	0.3	0.3	0.3	1.3	1.3	0.1
106.0	3.5	1.4	4.5	50.5	0.3	155.0	13.7	4.1	20.3	7.6	33.6	24.1	4.9	0.4	3.0	0.3	1.2	0.1	0.4	1.1	0.3	1.3	1.3	0.1

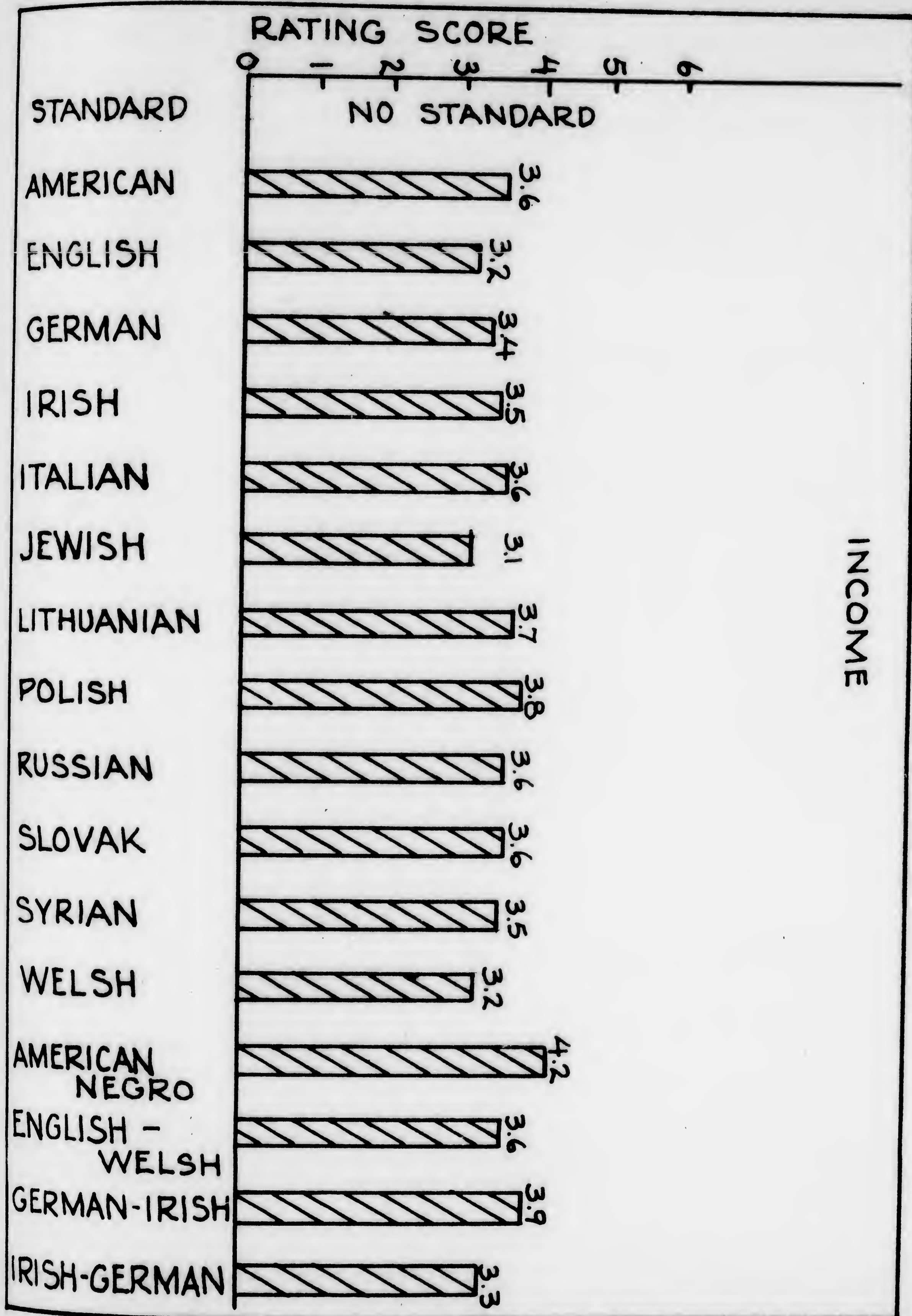


Figure 1 - Average Family Income

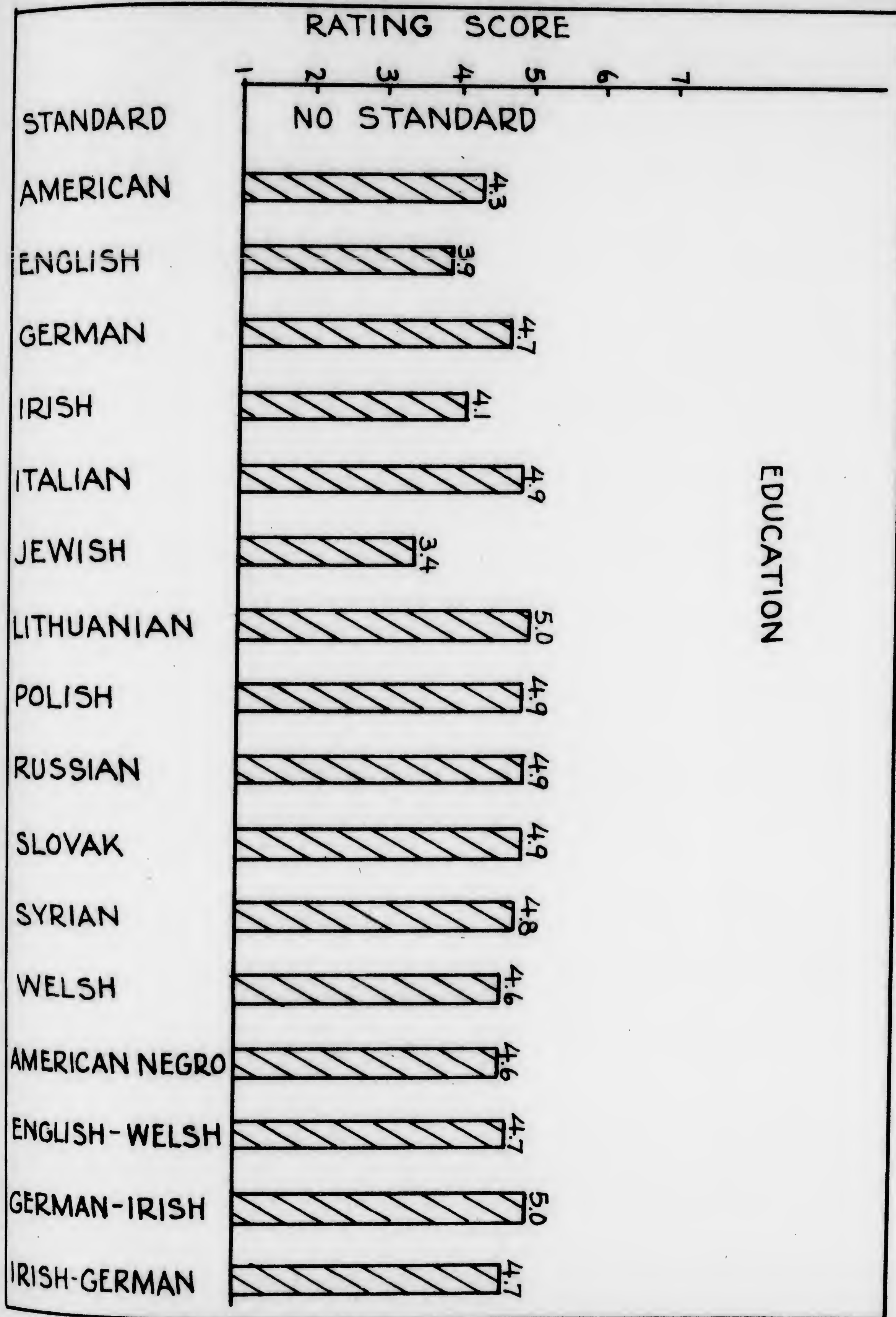


Figure 2 - Average Family Education

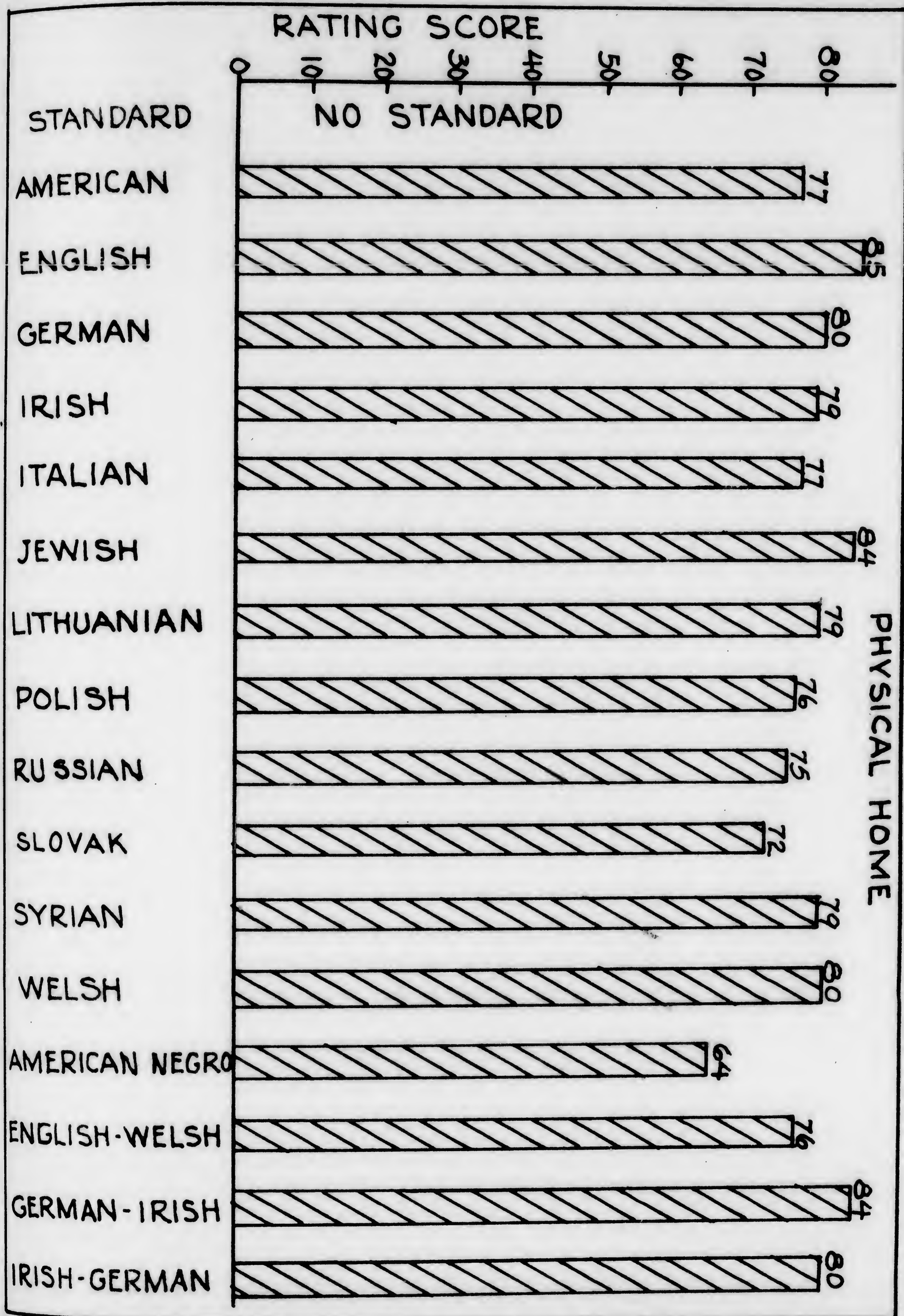


Figure 3 - Average Physical Home Rating

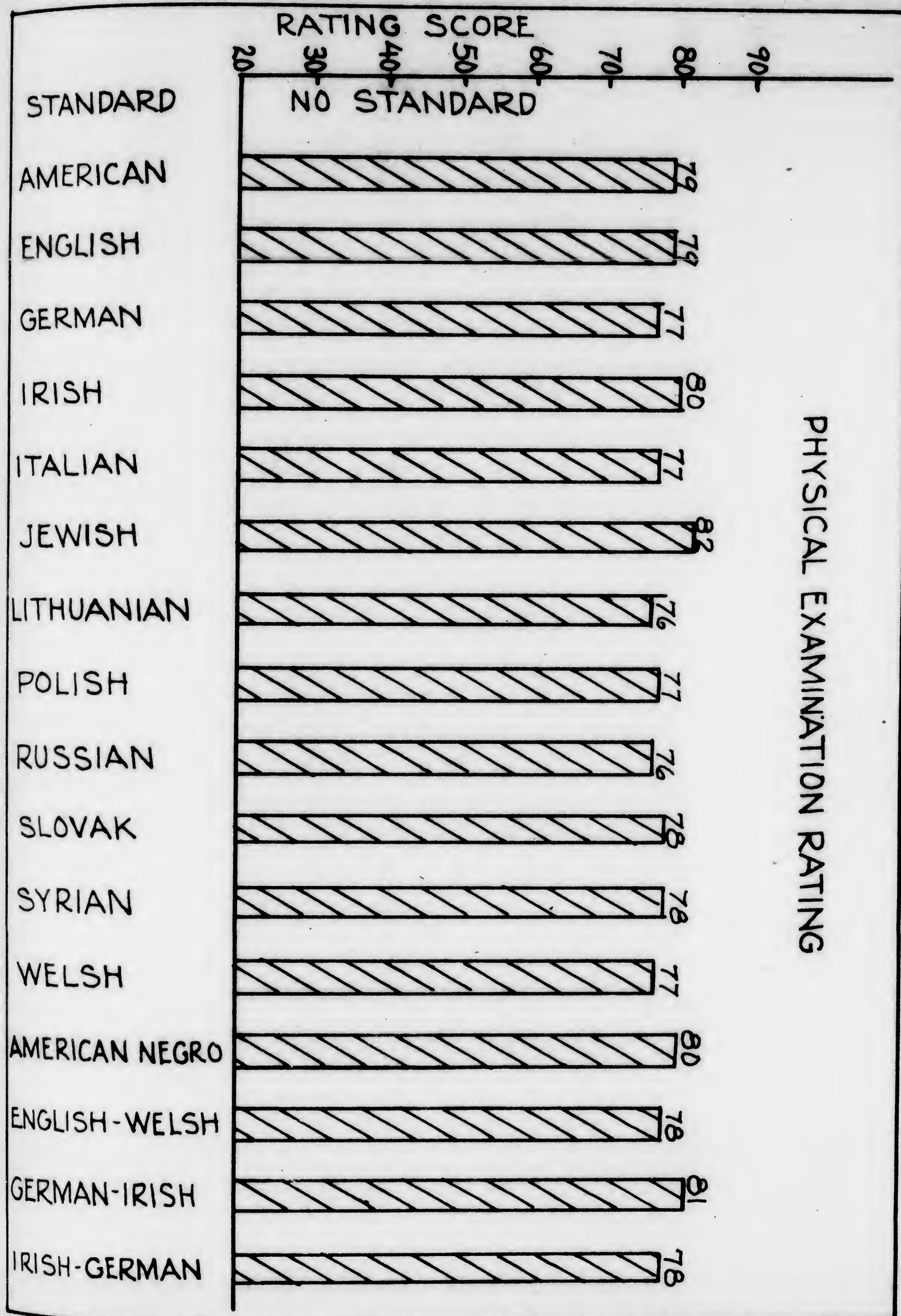


Figure 4 - Average Physical Examination Rating

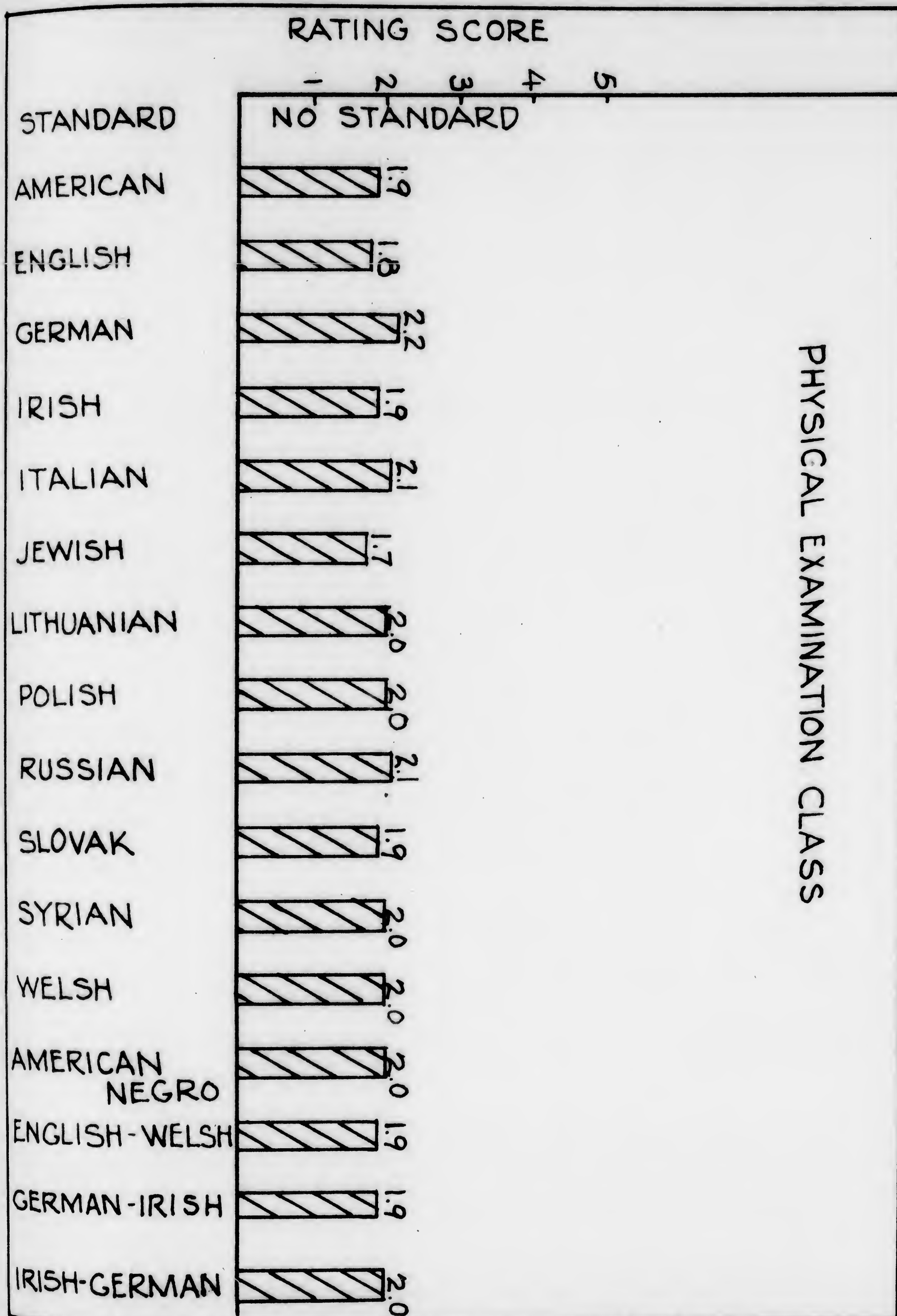


Figure 5 - Average Physical Examination Class

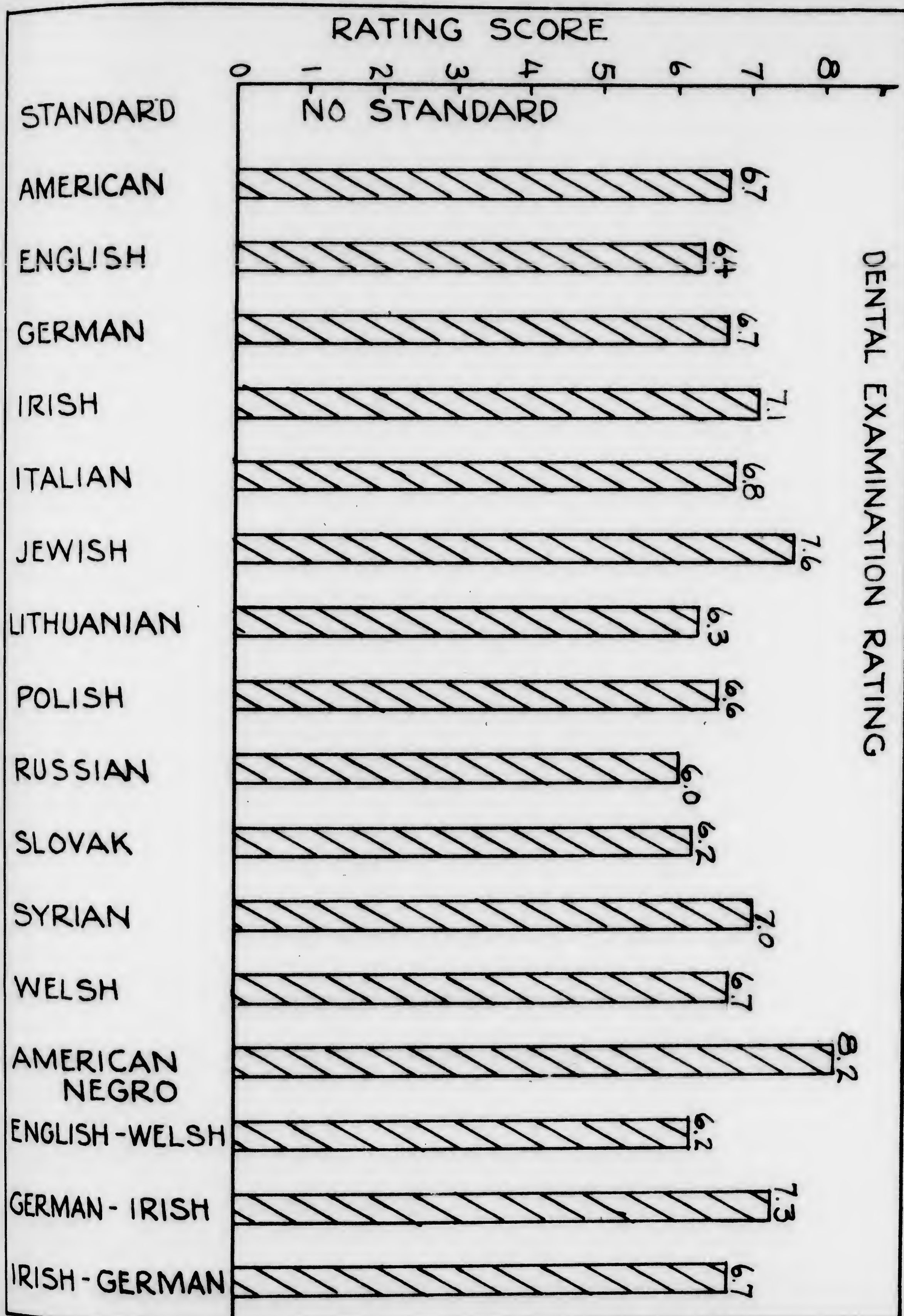


Figure 6 - Average Dental Examination Rating

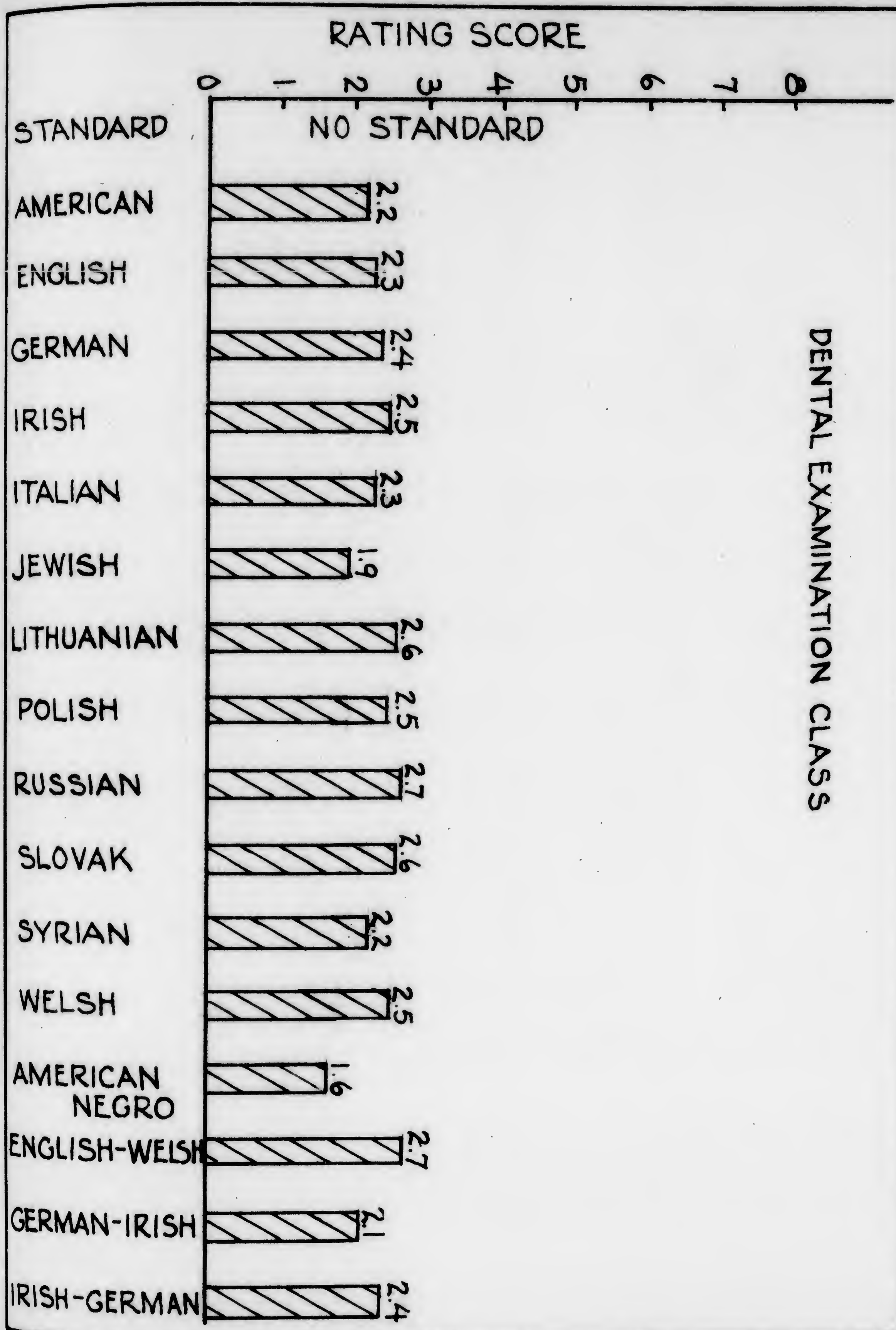


Figure 7 - Average Dental Examination Class

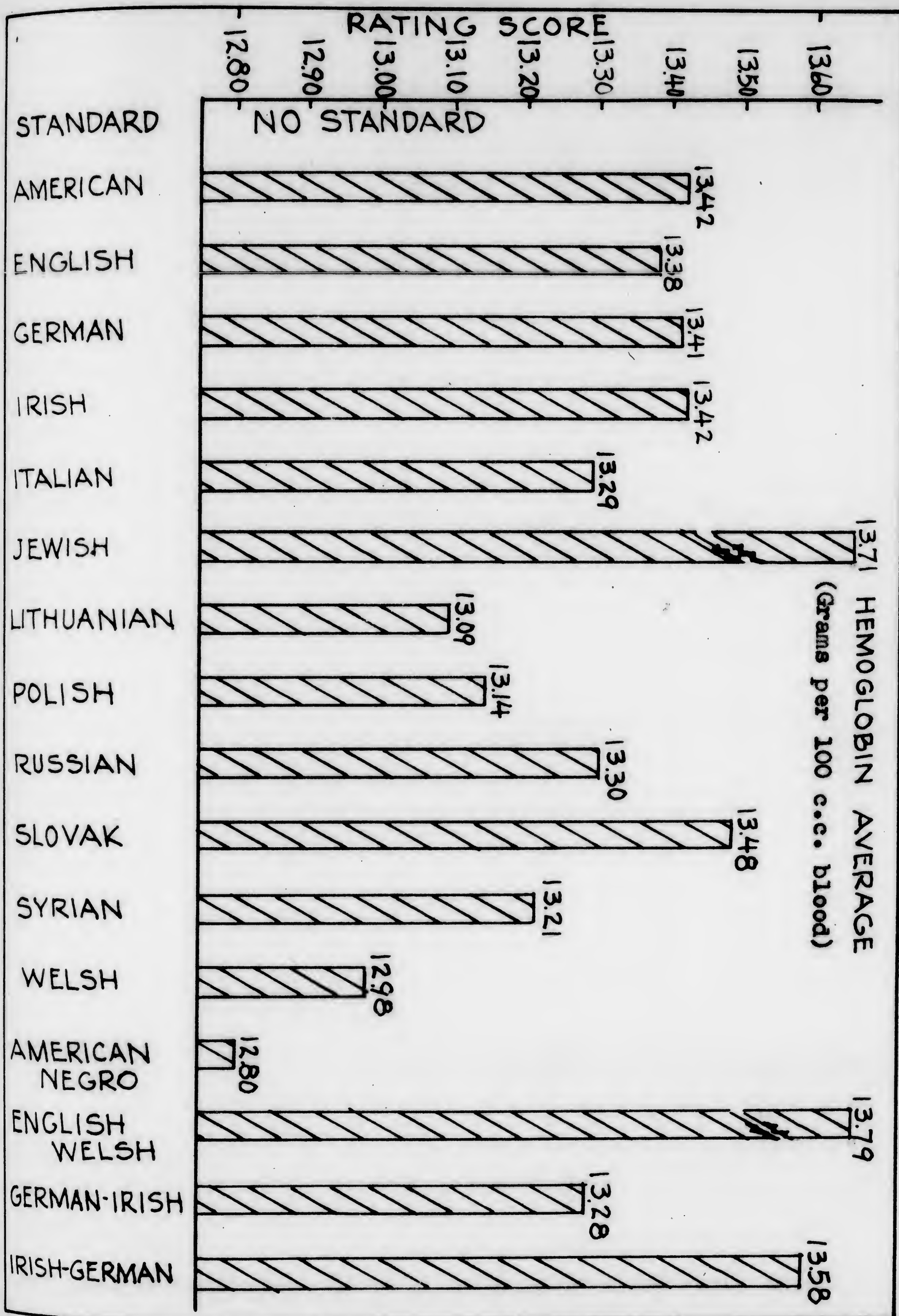


Figure 8 - Average Hemoglobin

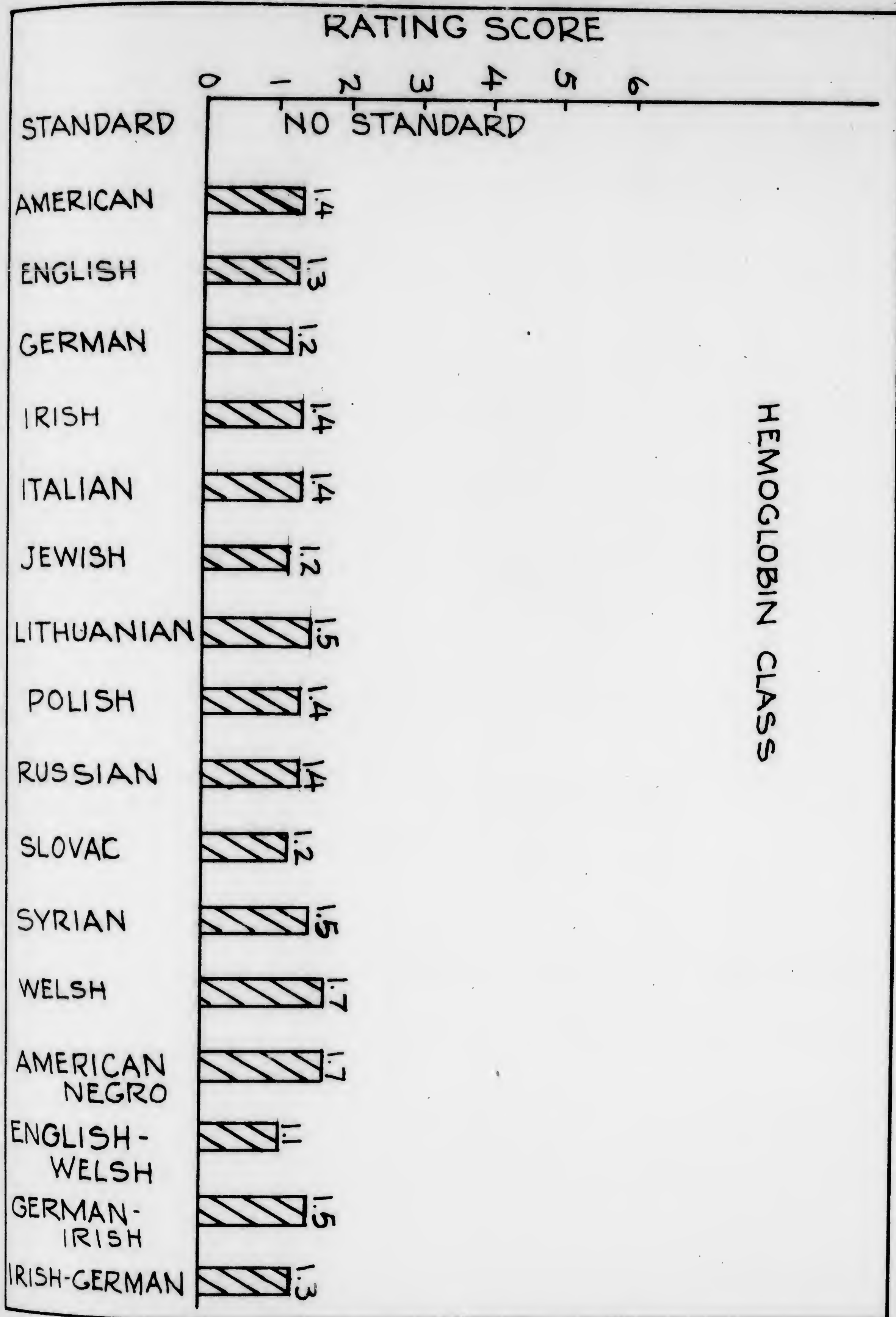


Figure 9 - Average Hemoglobin Class

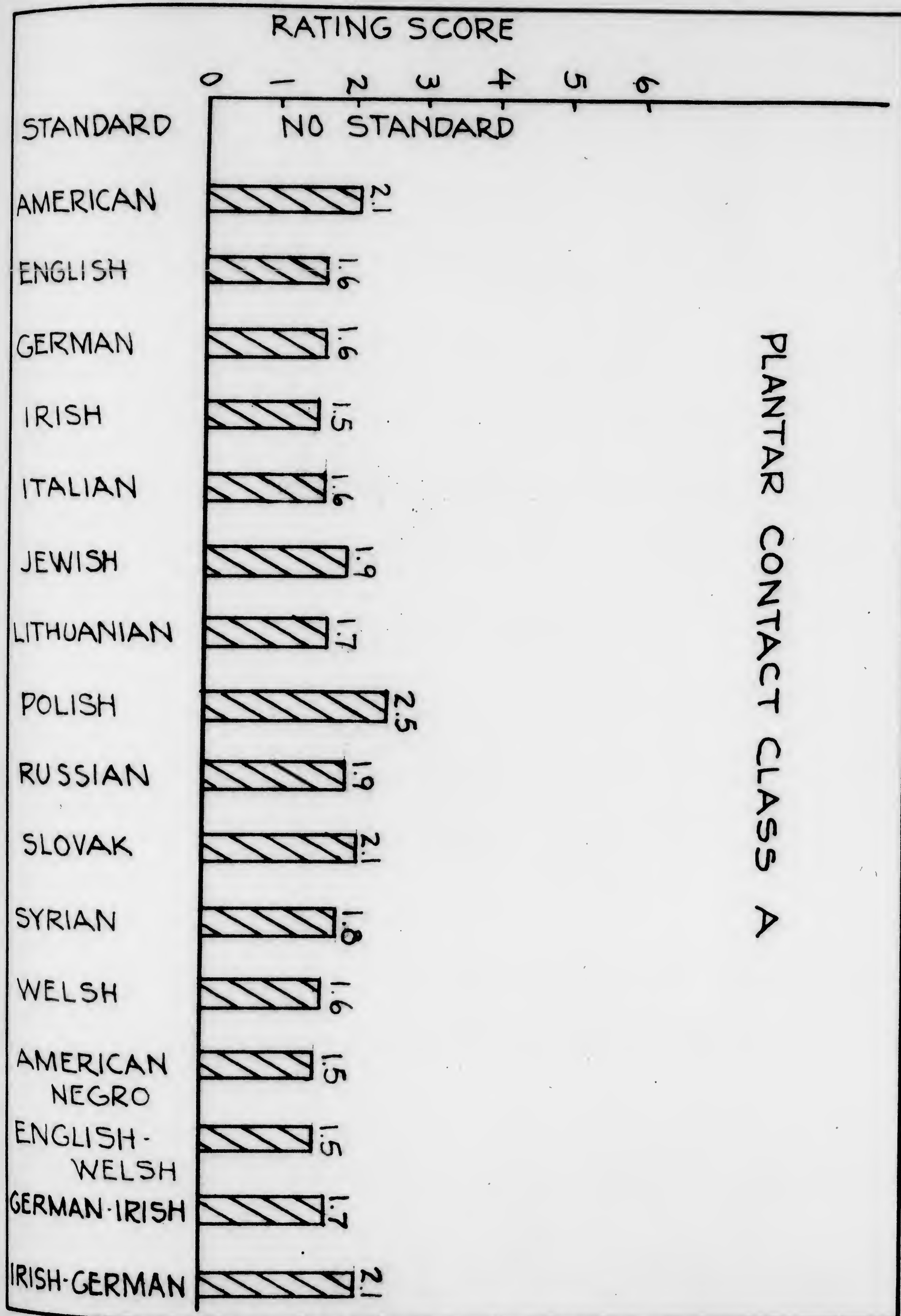


Figure 10 - Average Sitting Plantar Class

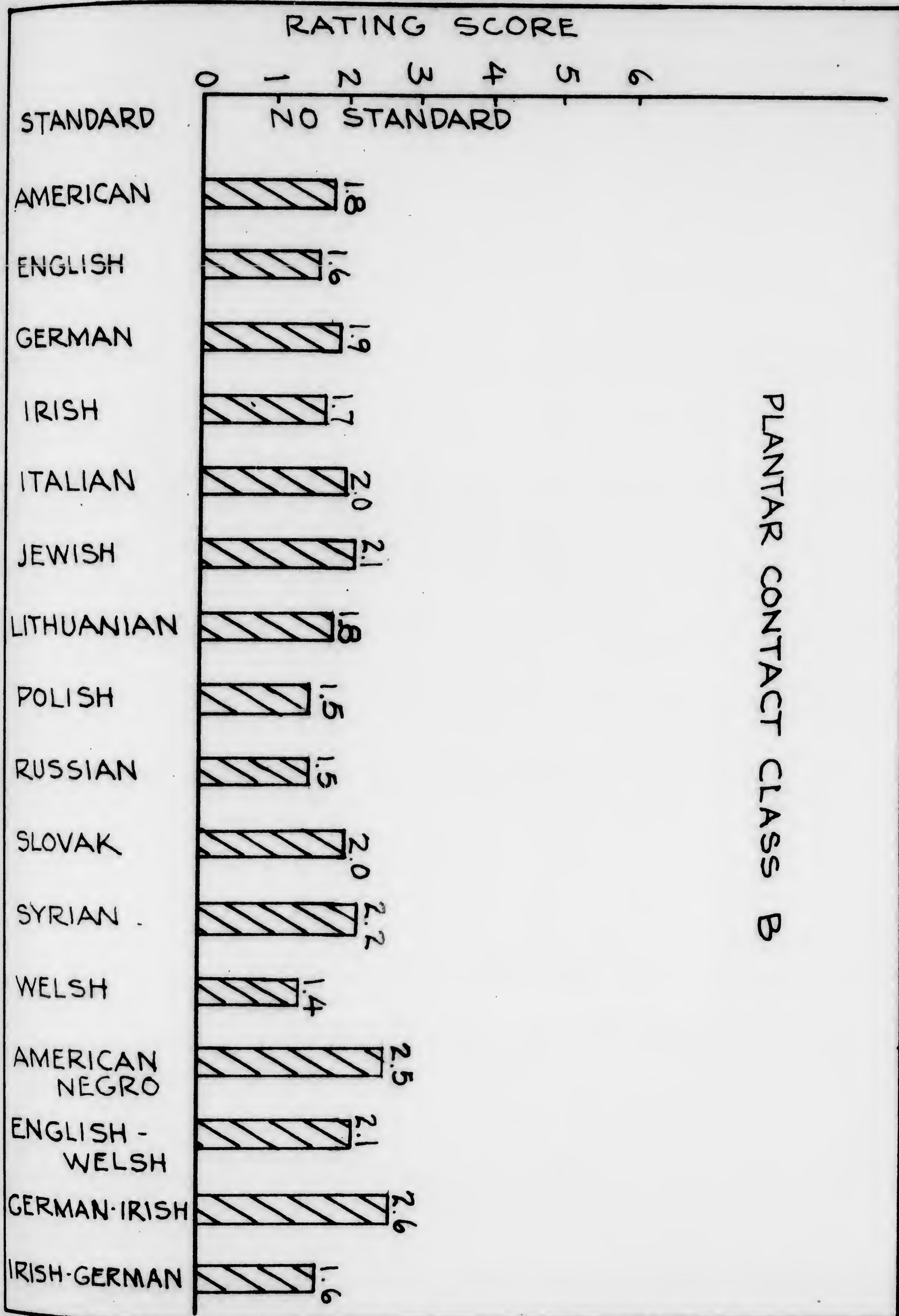


Figure 11 - Average Standing Plantar Class

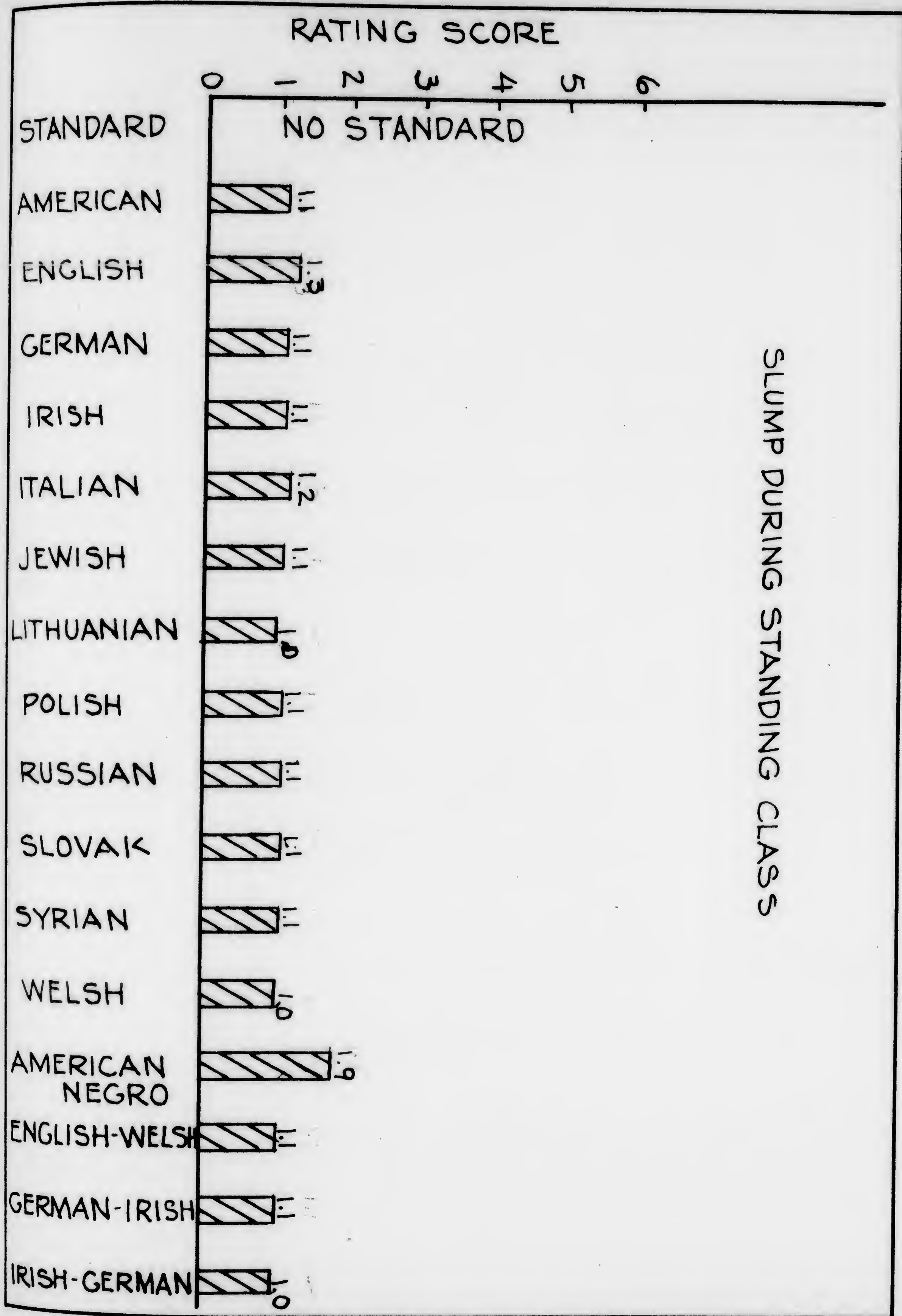


Figure 12 - Average Slump During Standing Class

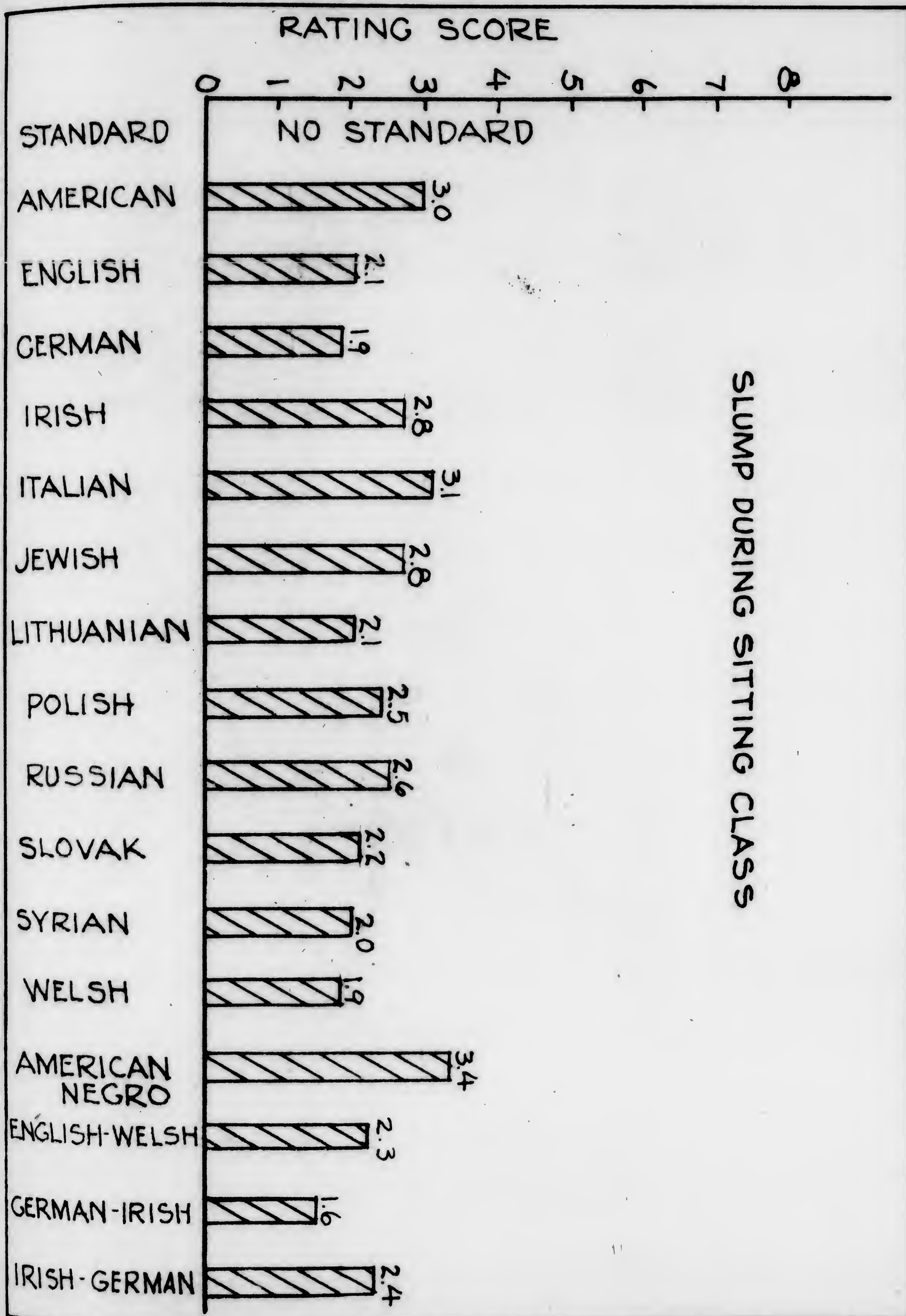


Figure 13 - Average Slump During Sitting Class

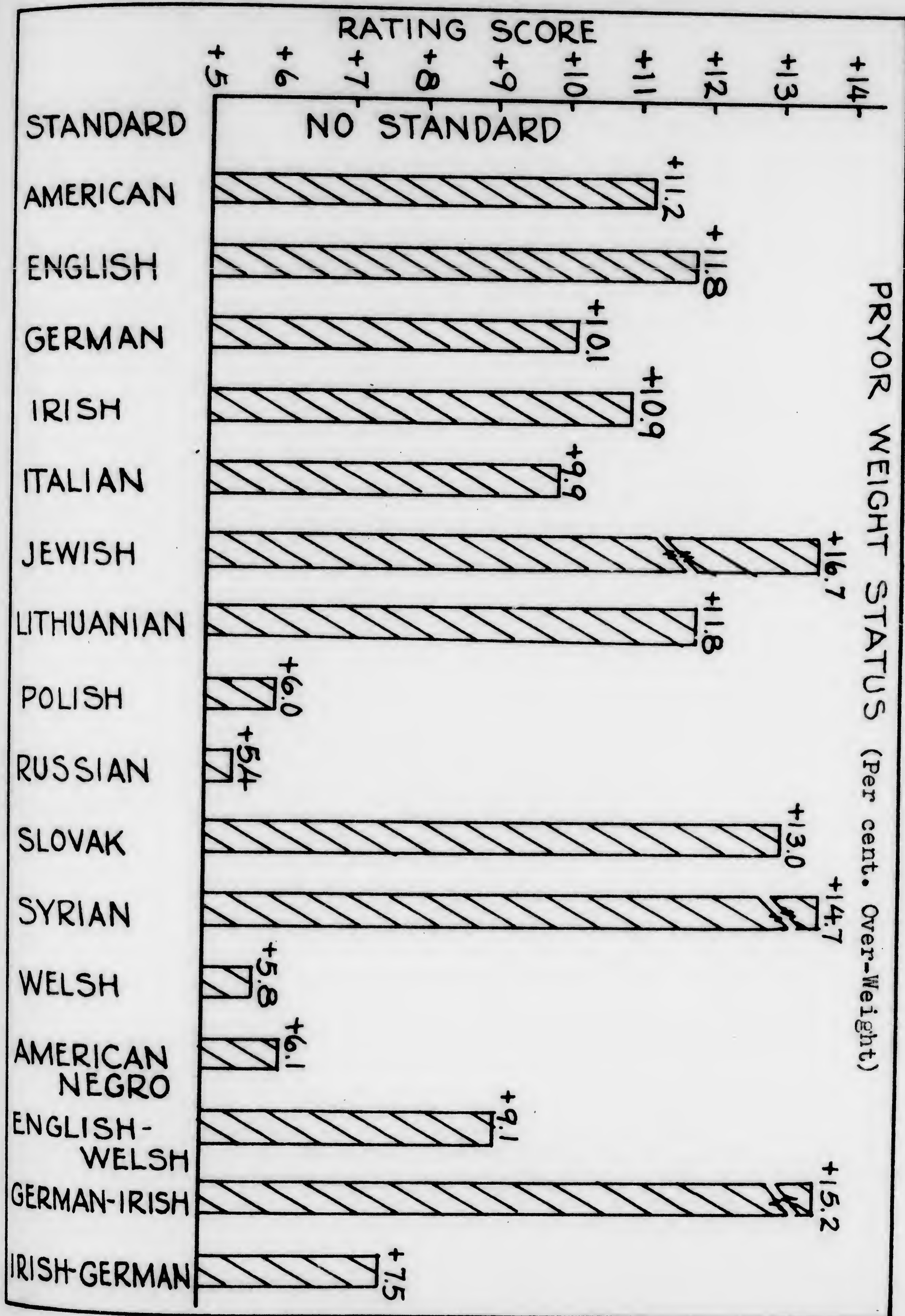


Figure 14 - Average Pryor Weight Status

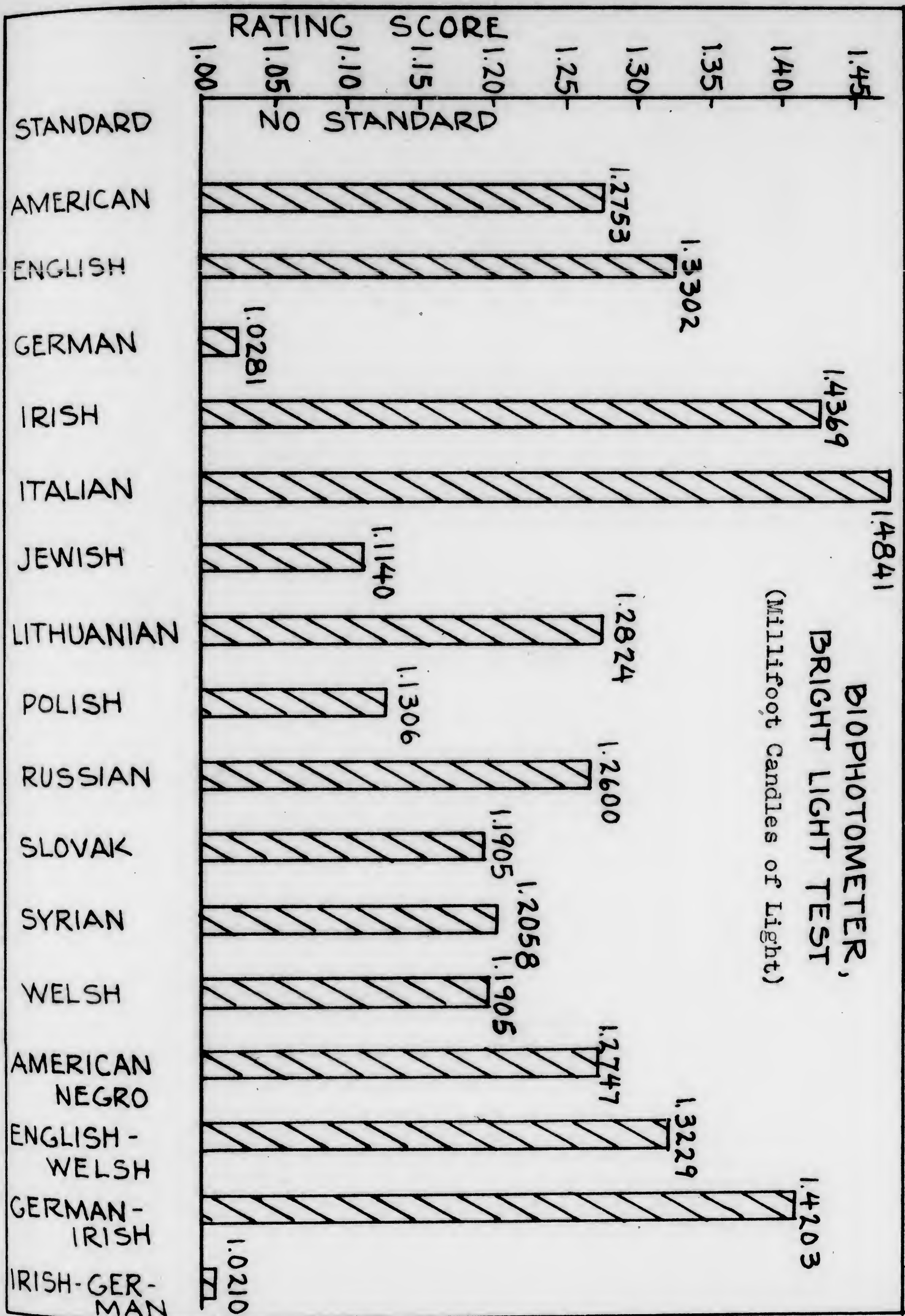


Figure 15 - Average Biophotometer Bright Light Test

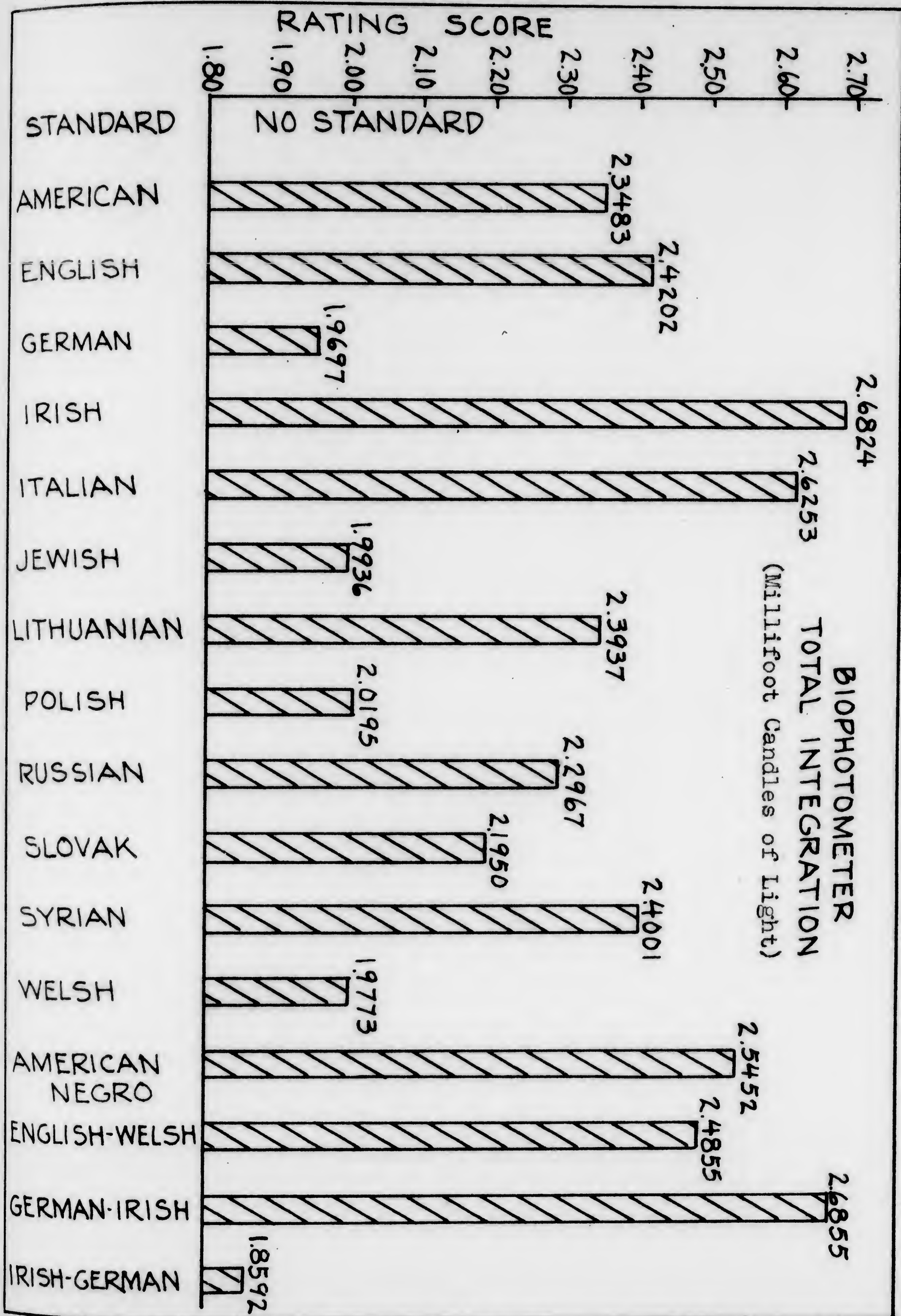


Figure 16 - Average Biophotometer Total Integration

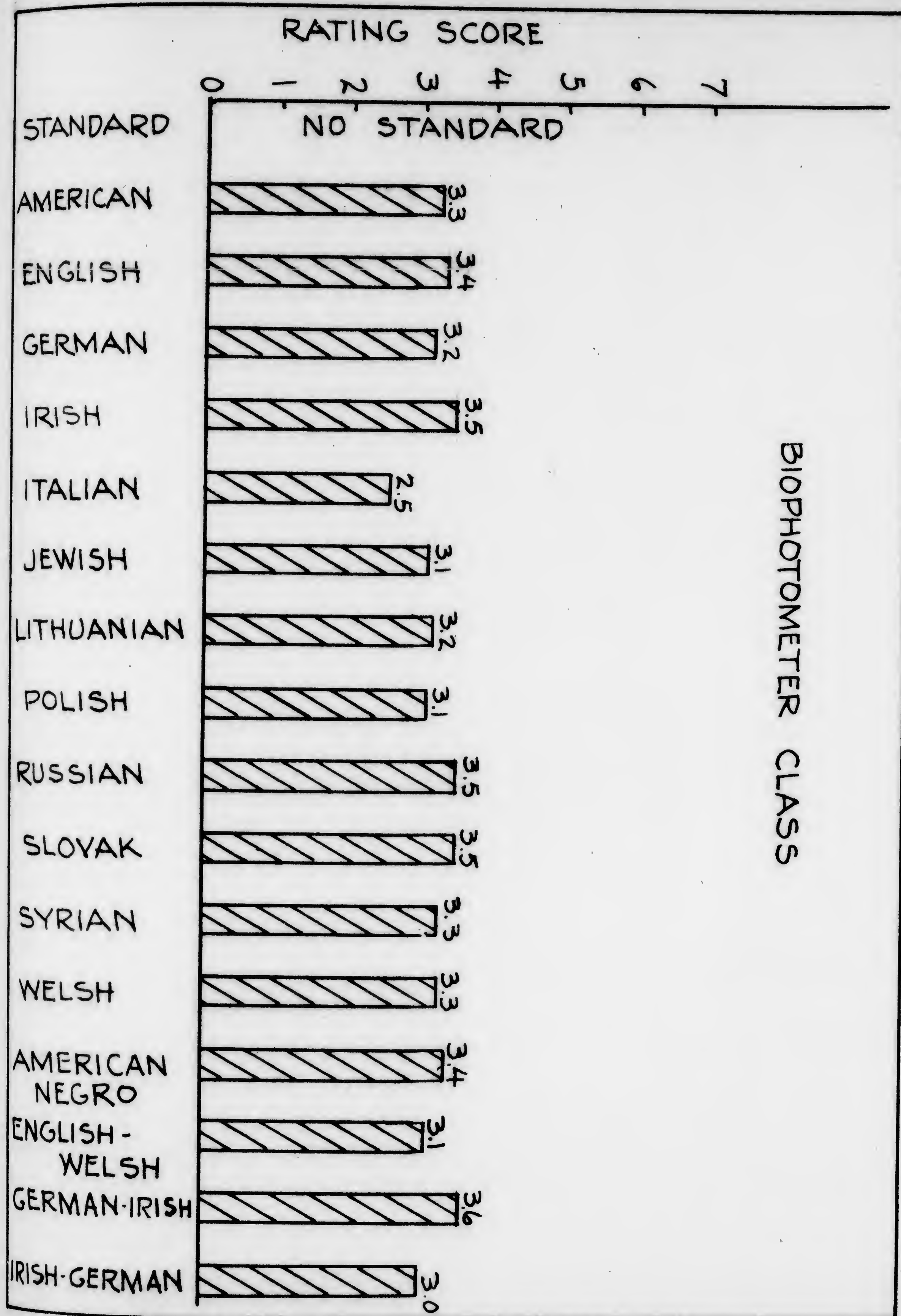


Figure 17 - Average Biophotometer Class

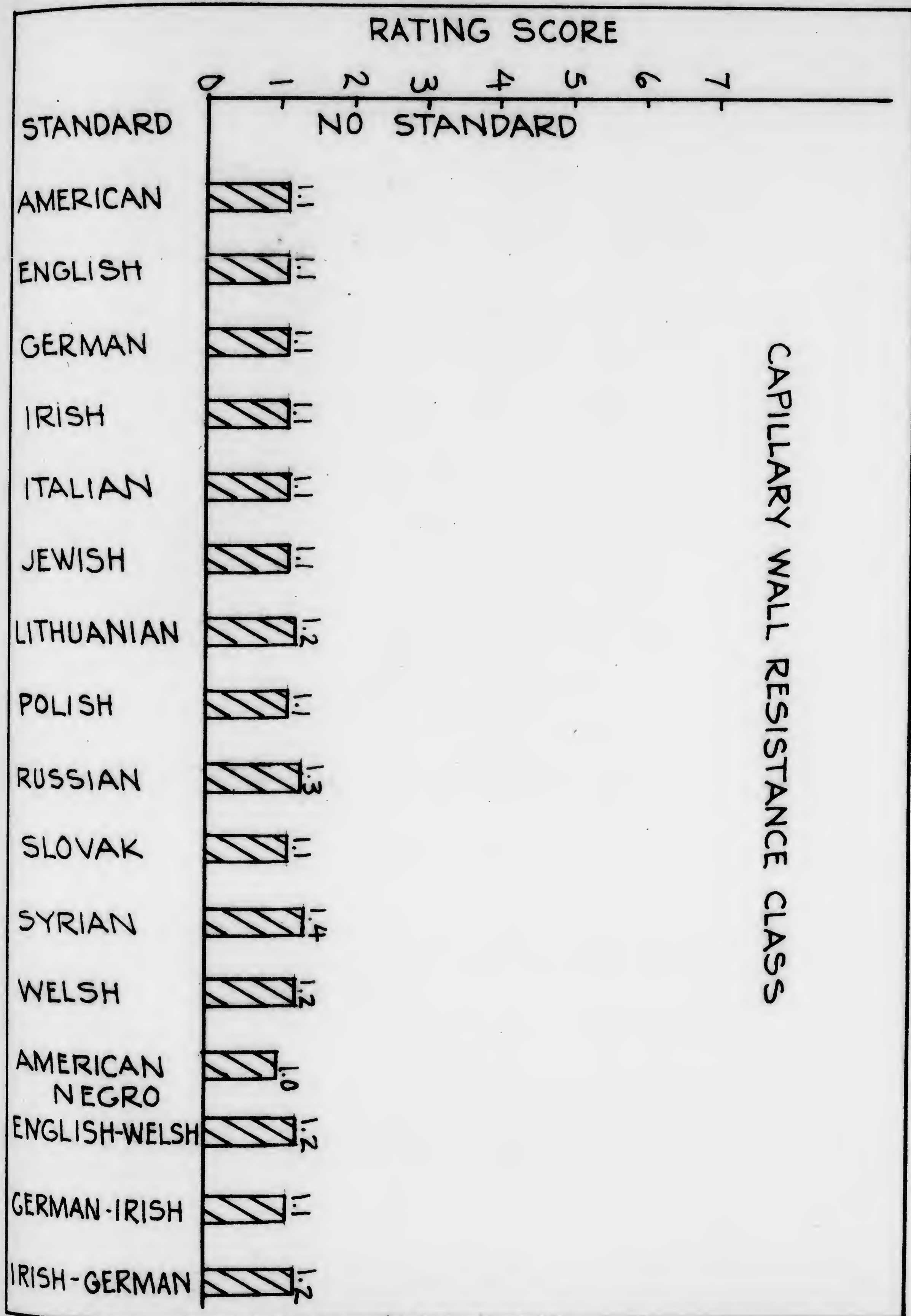


Figure 18 - Average Capillary Wall Resistance Class

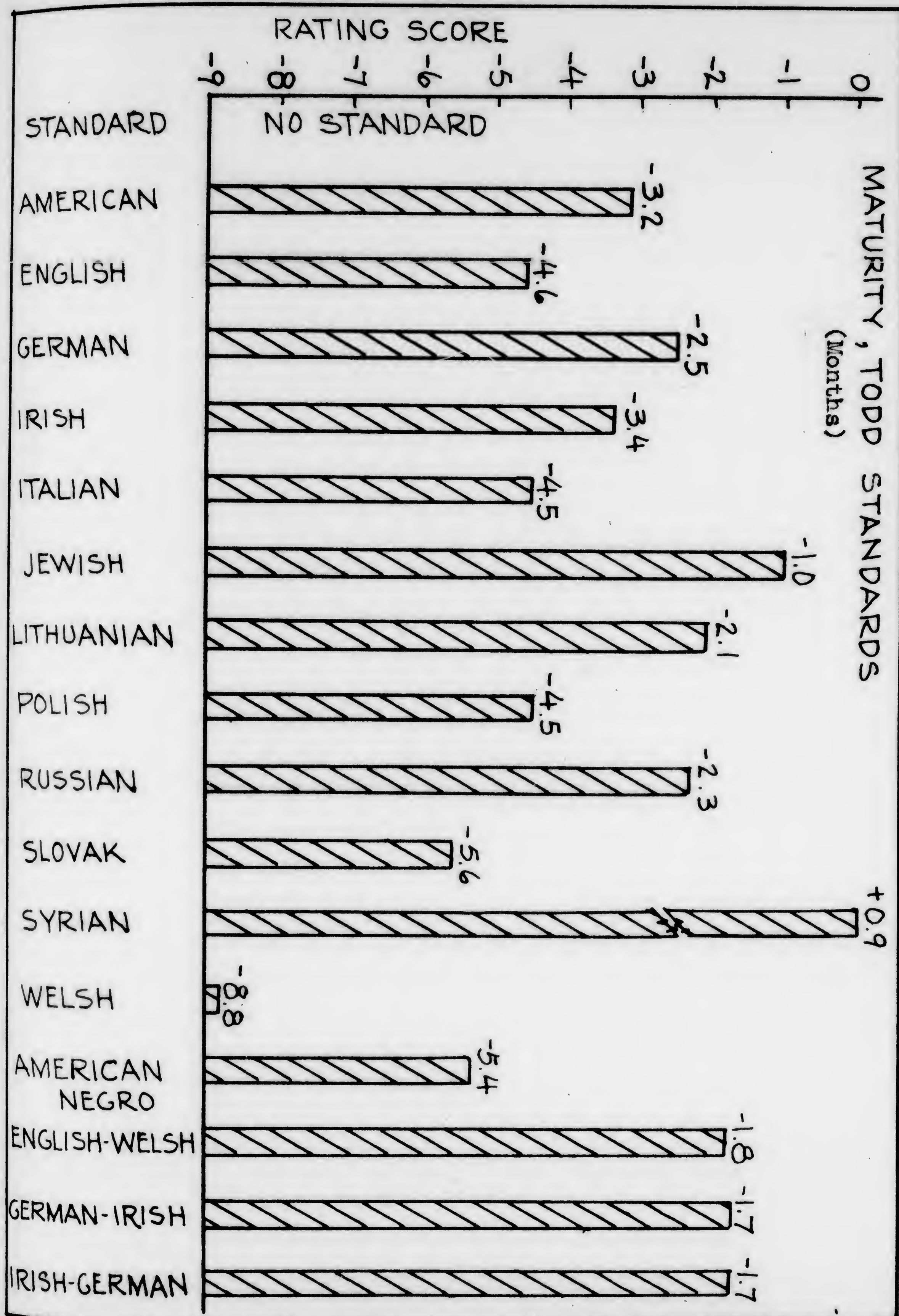


Figure 19 - Average Maturity Age by Todd Standards

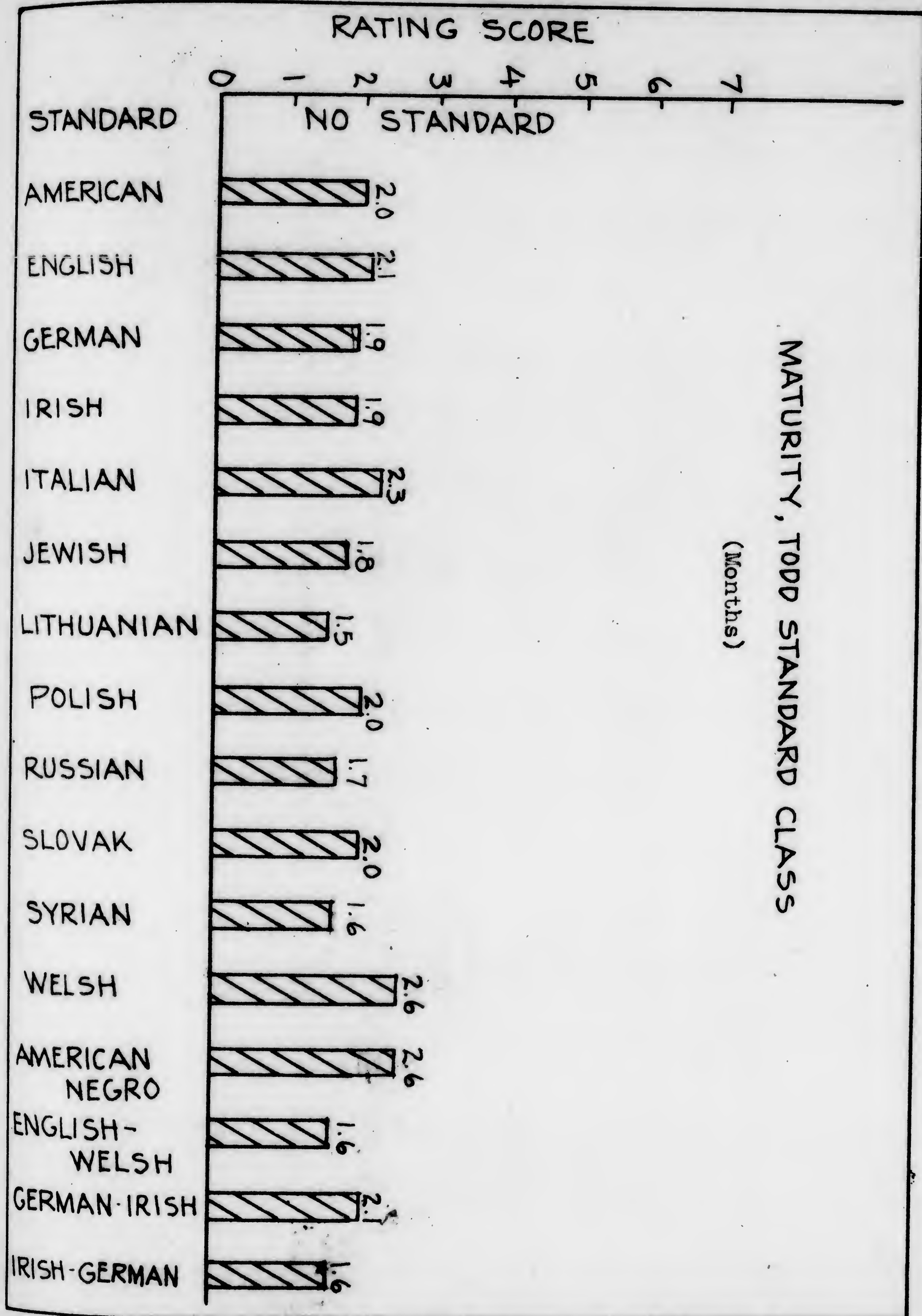


Figure 20 - Average Maturity Age Class

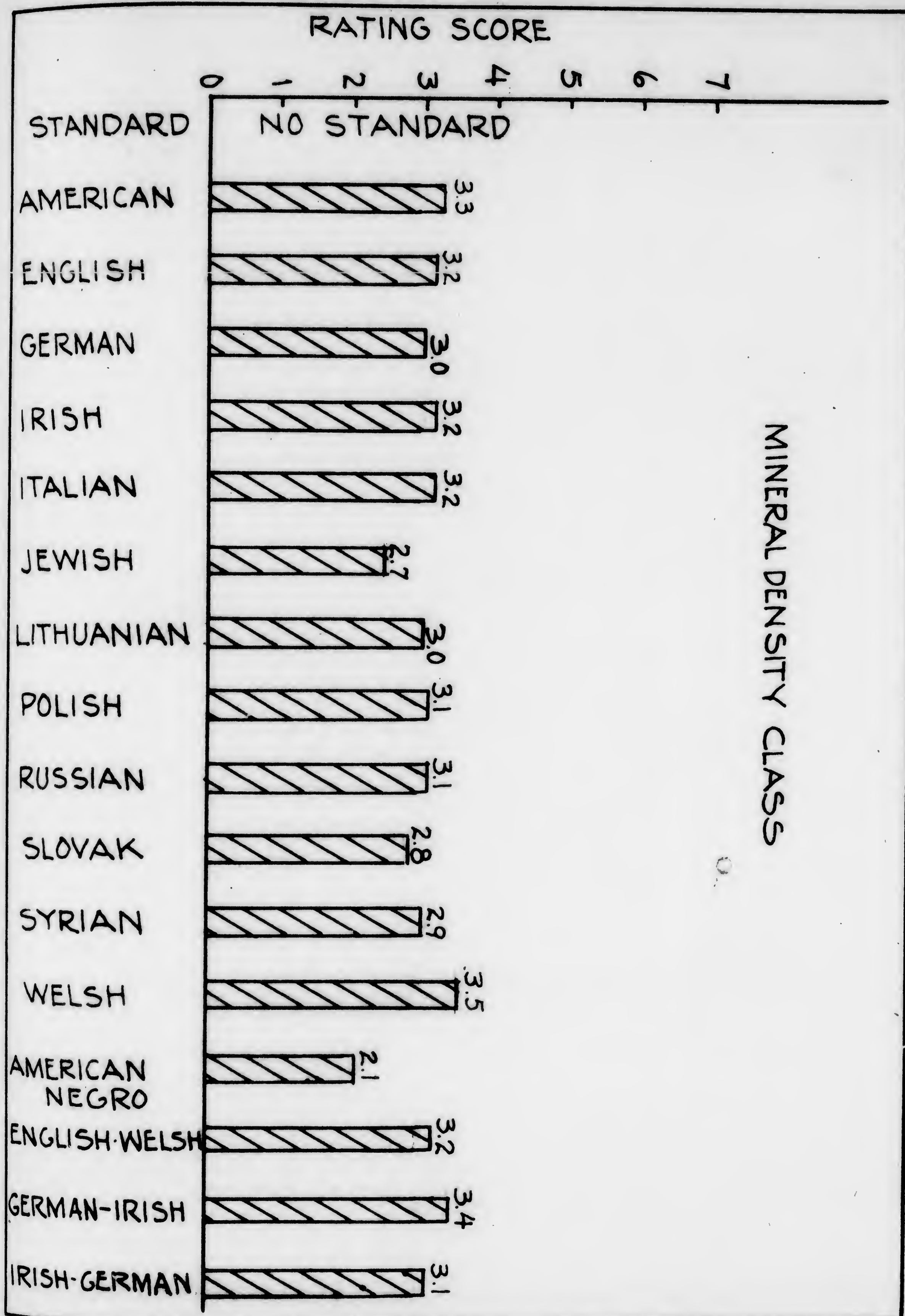


Figure 21 - Average Mineral Density Class

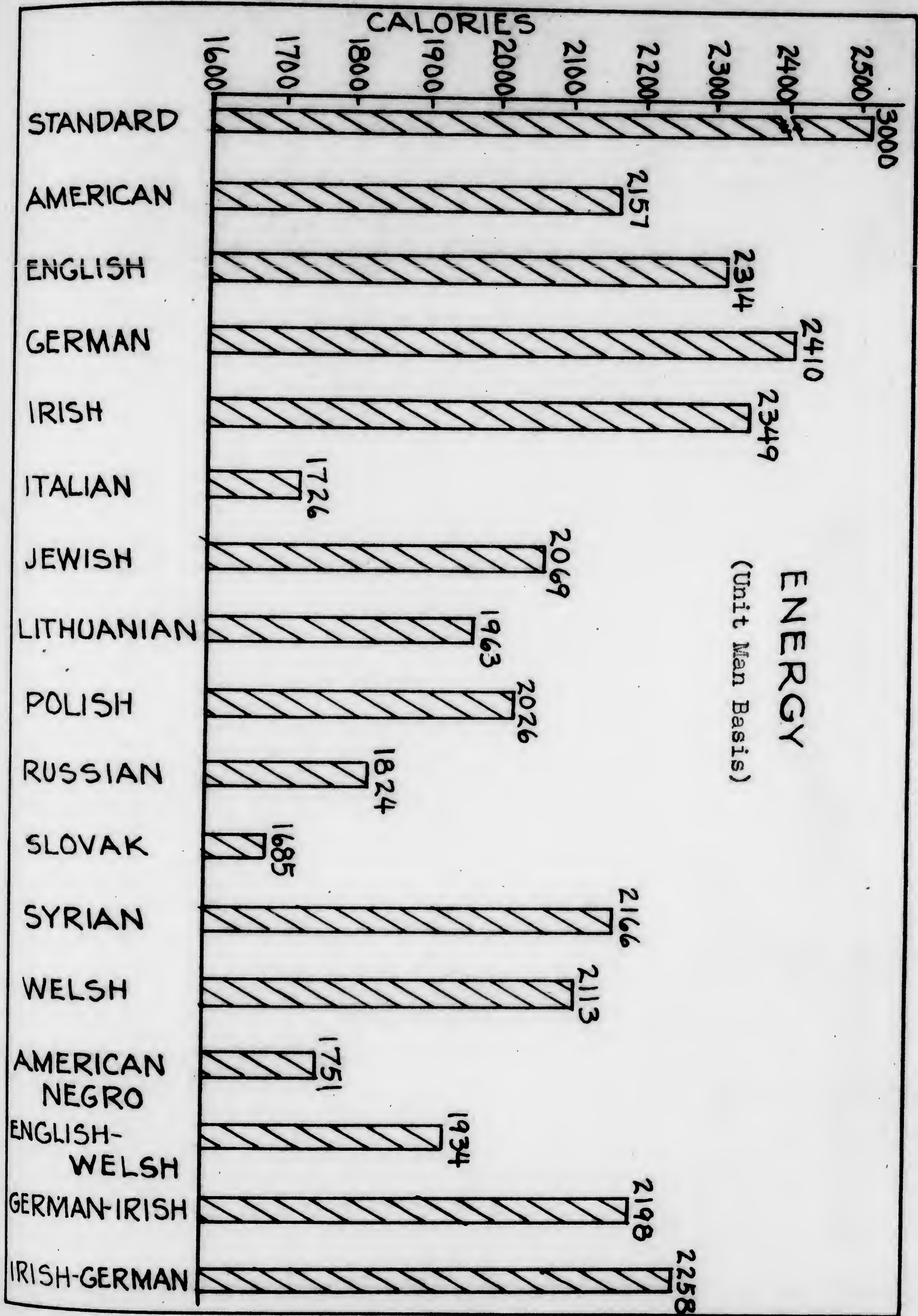


Figure 22 - Average Intake of Energy-Giving Foods

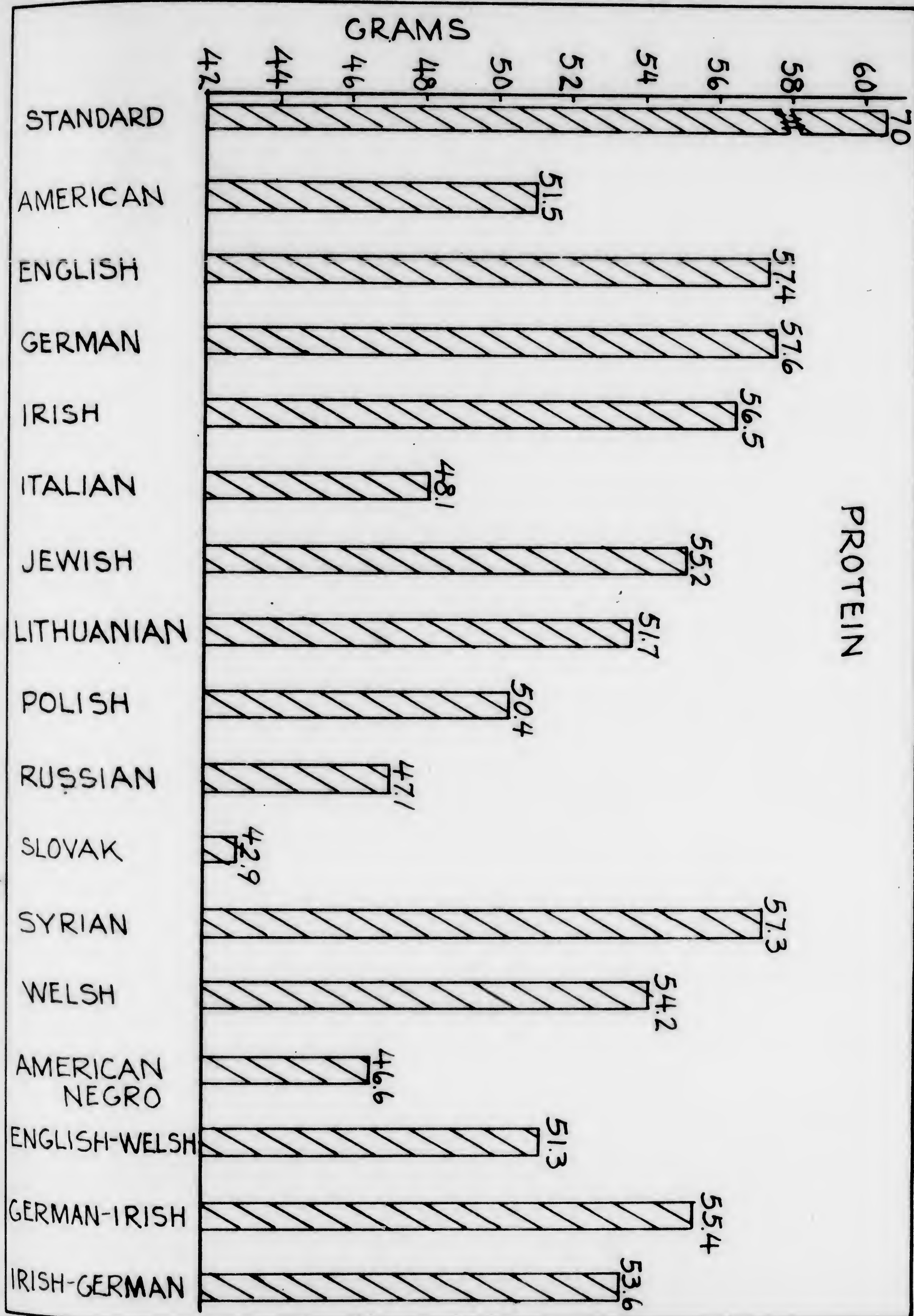


Figure 23 - Average Intake of Protein

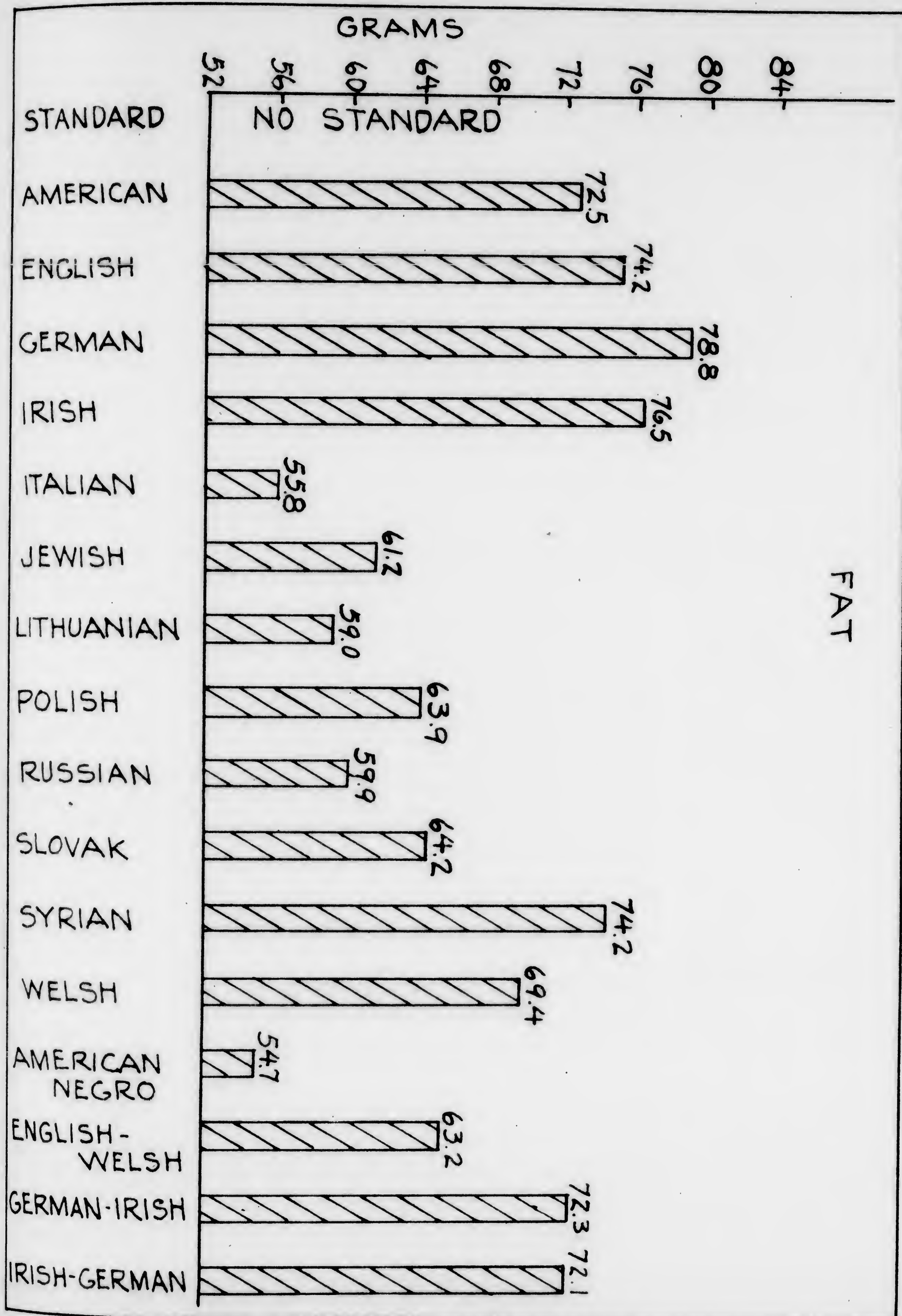


Figure 24 - Average Intake of Fat

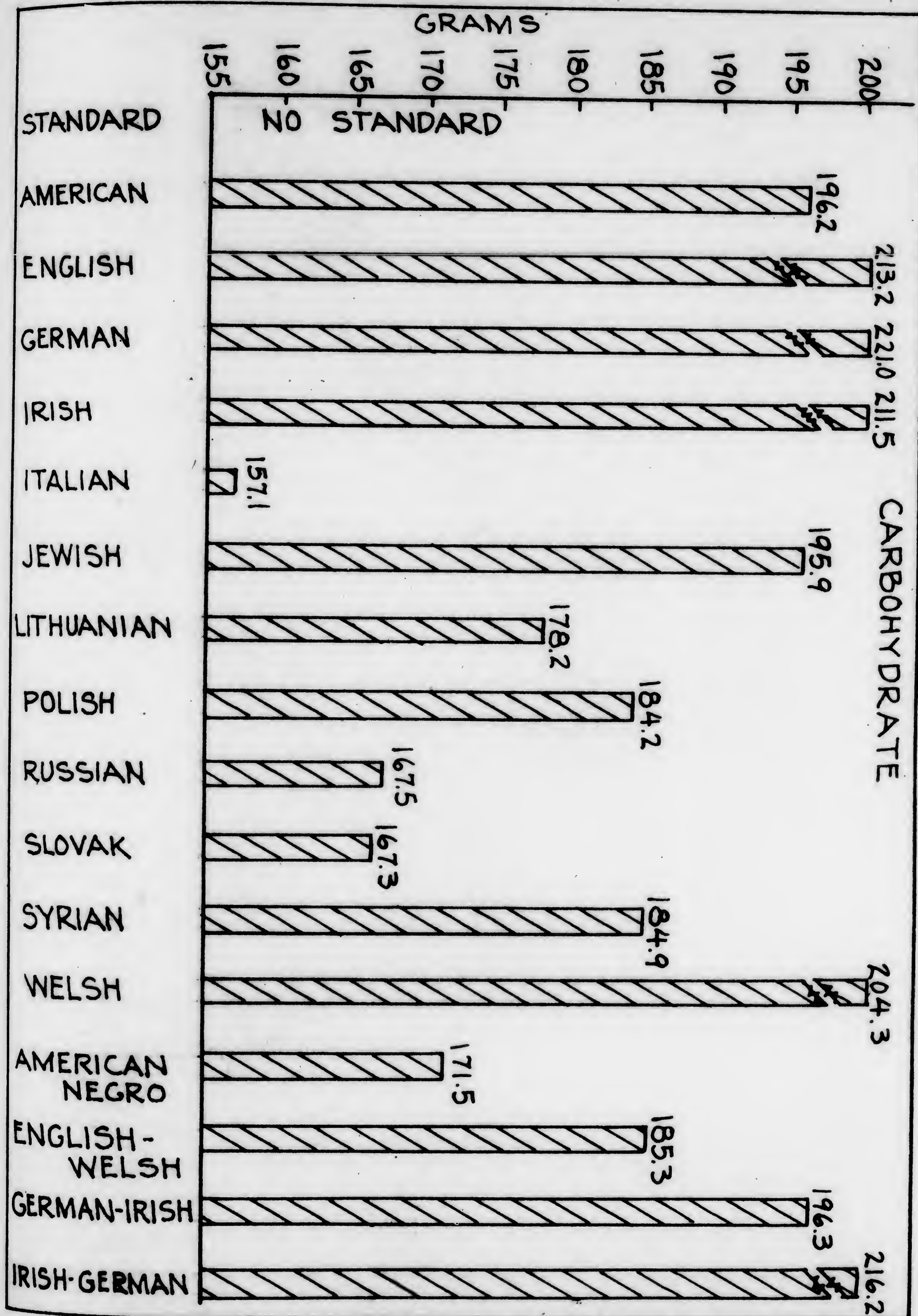


Figure 25 - Average Intake of Carbohydrates

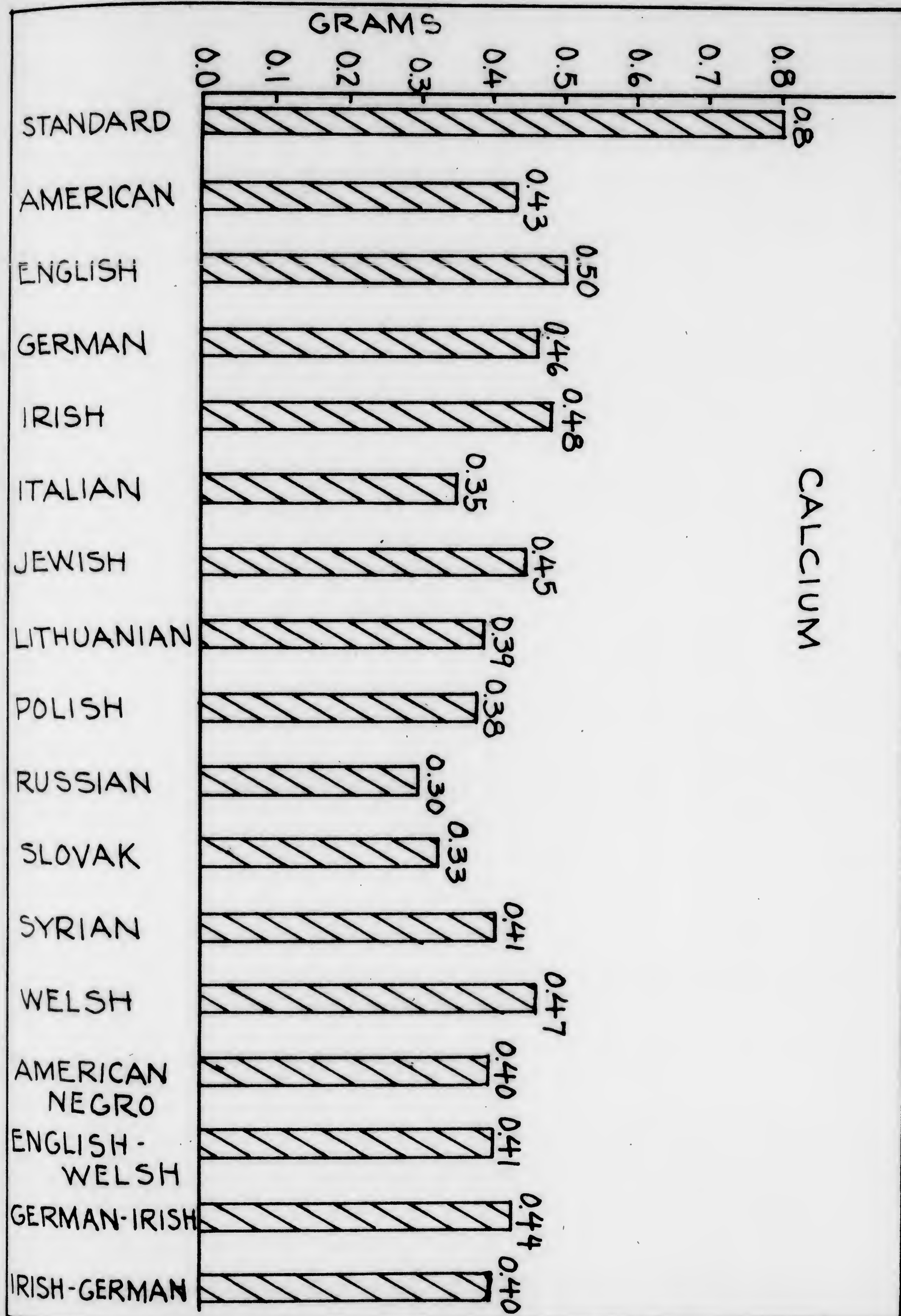


Figure 26 - Average Intake of Calcium

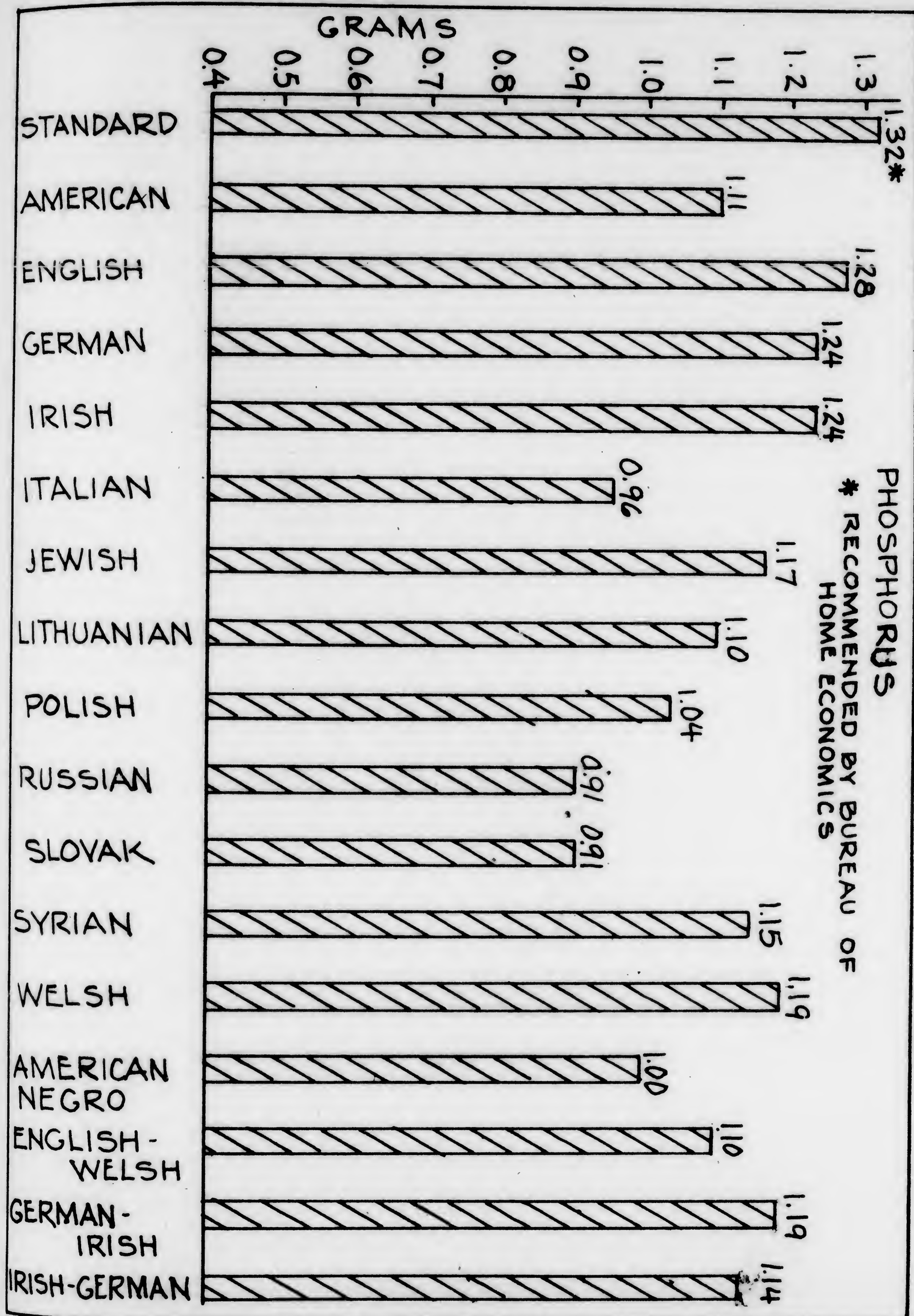


Figure 27 - Average Intake of Phosphorus

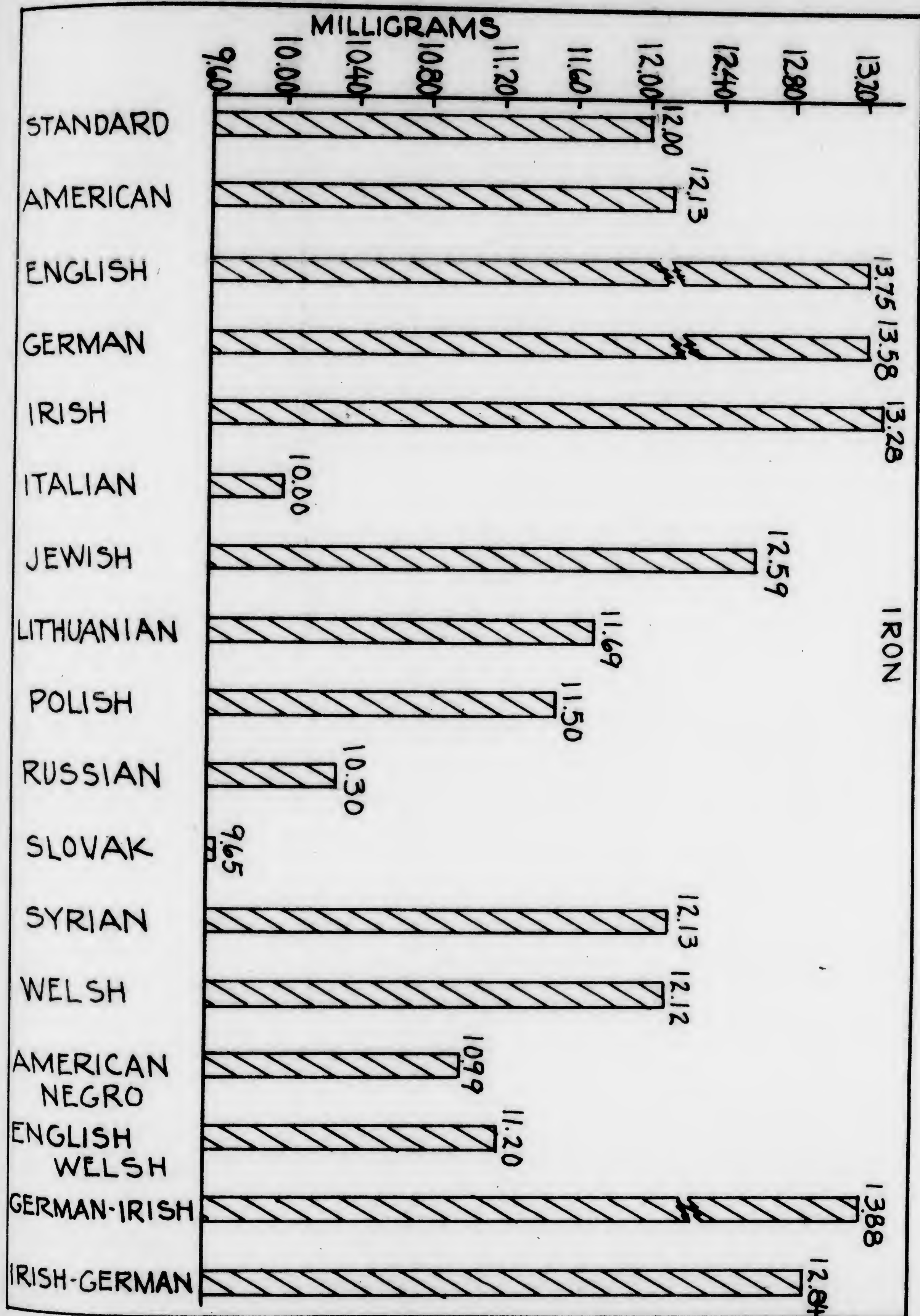


Figure 28 - Average Intake of Iron

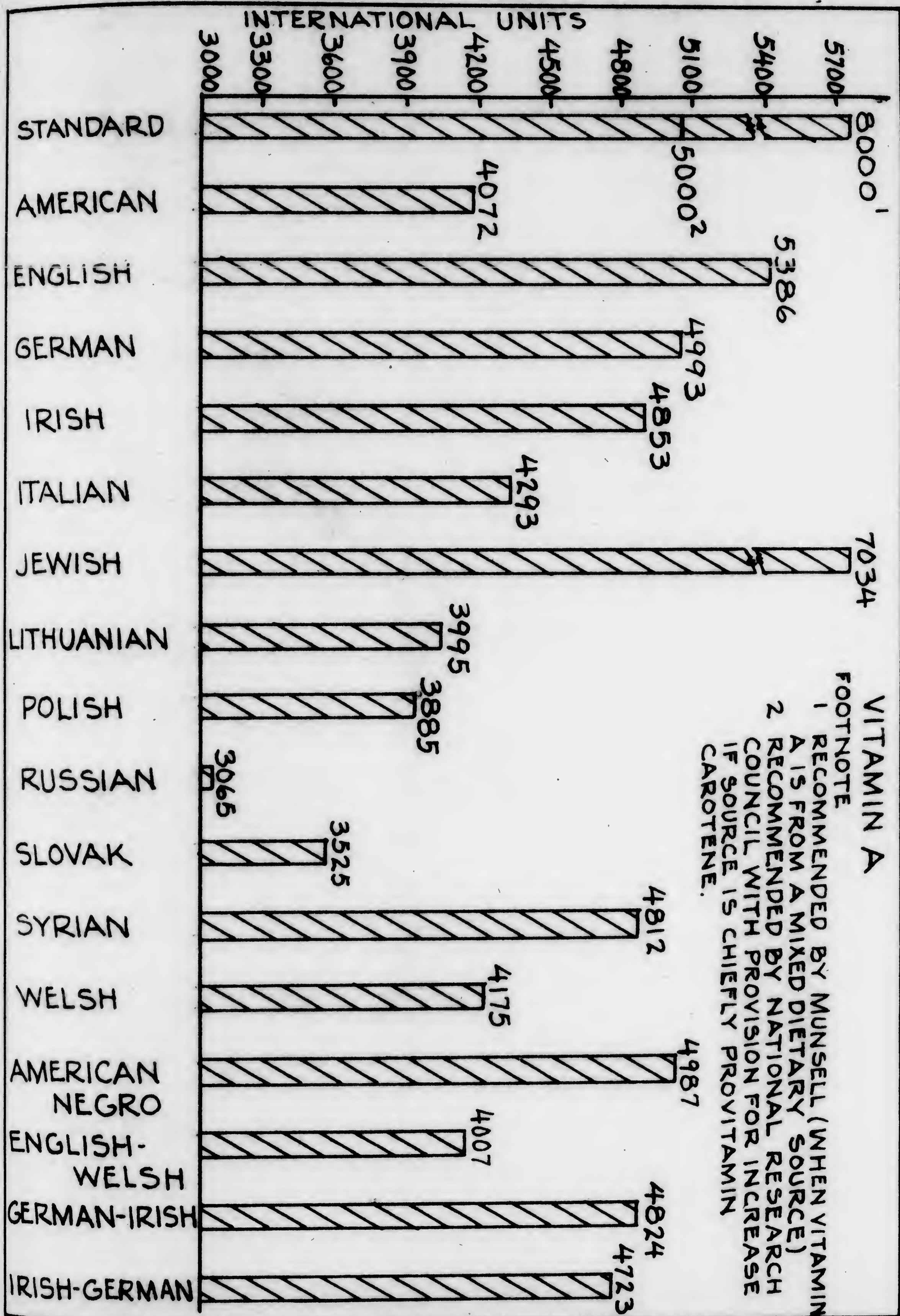


Figure 29 - Average Intake of Vitamin A

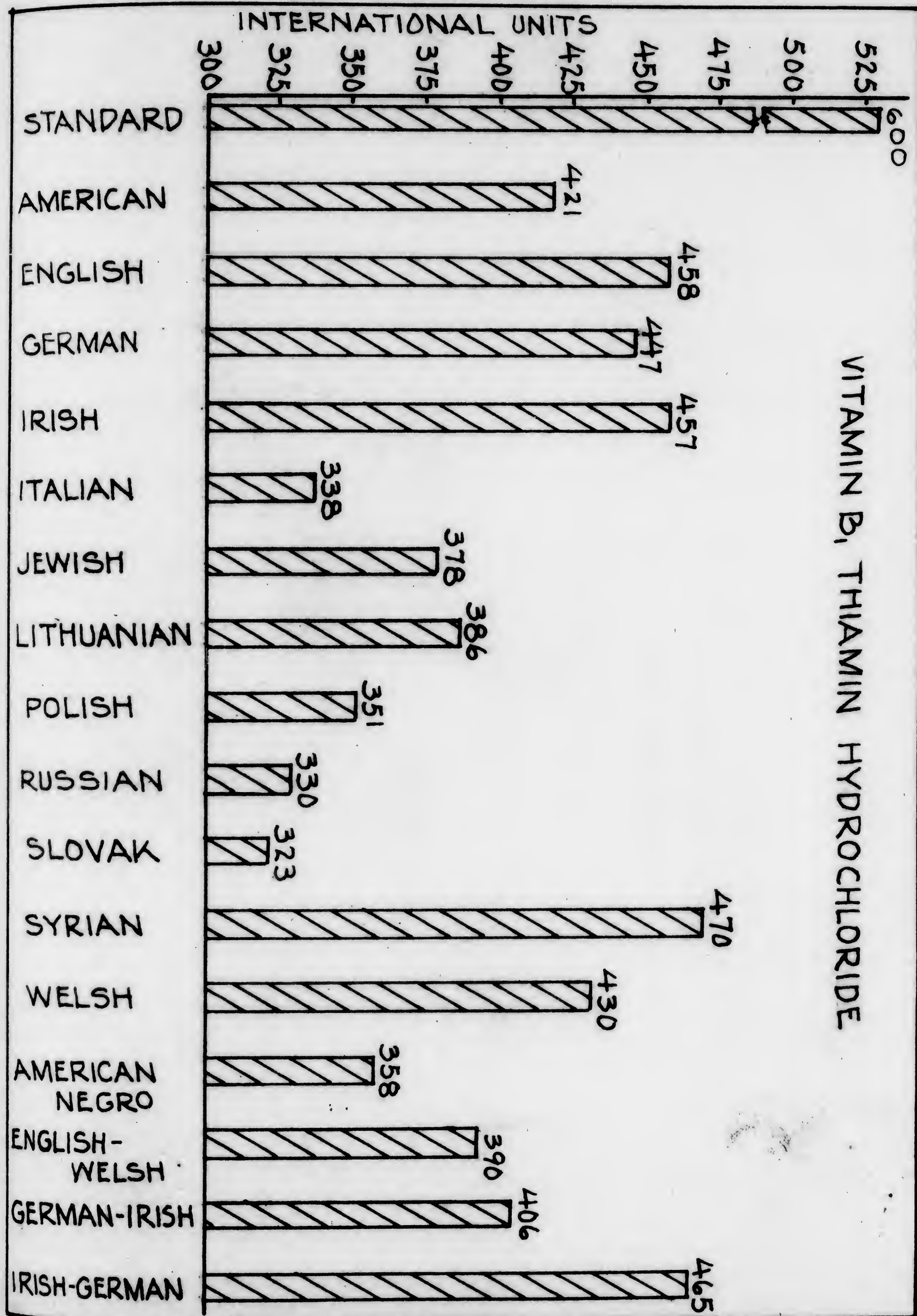


Figure 30 - Average Intake of Thiamin Hydrochloride

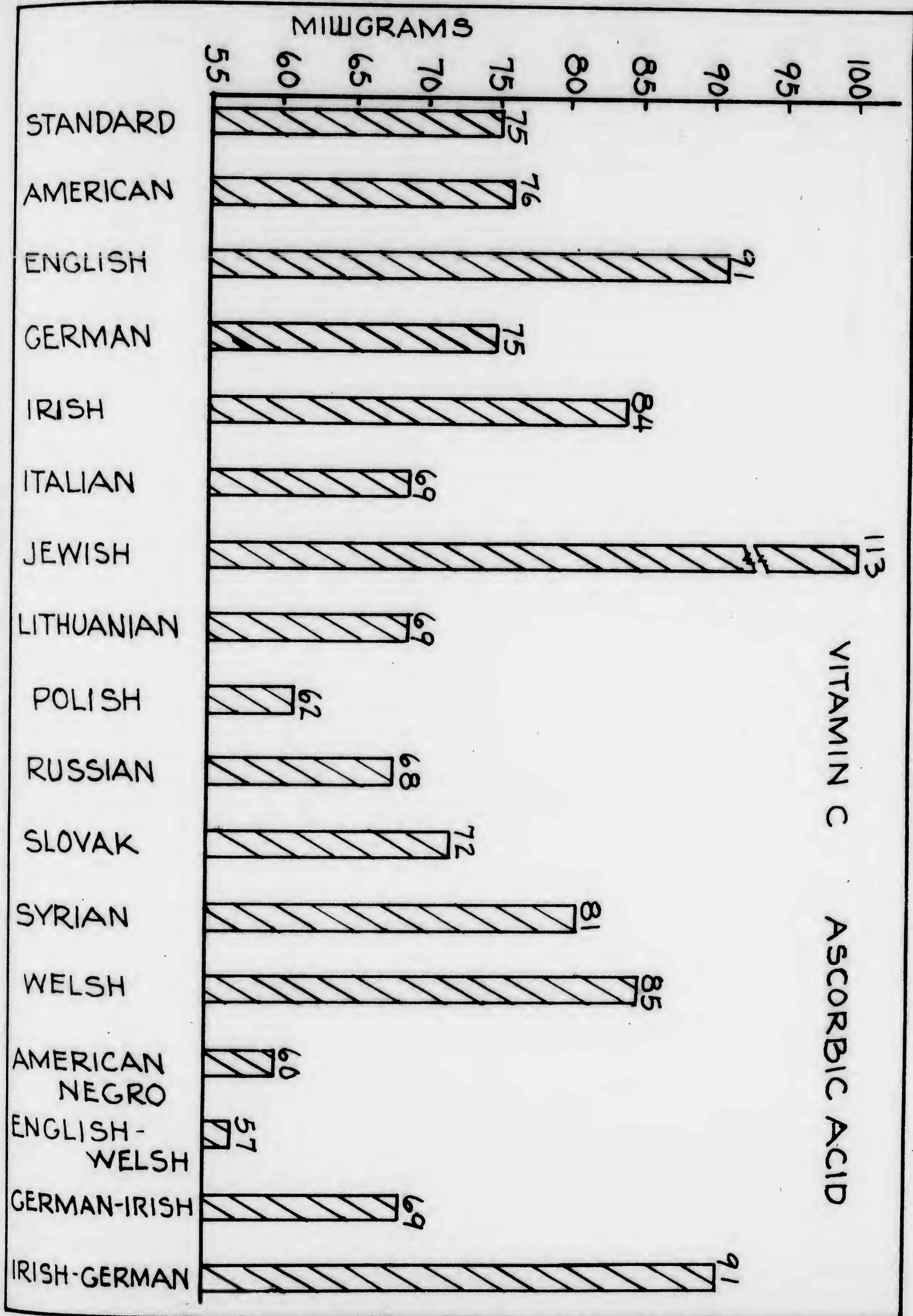


Figure 31 - Average Intake of Ascorbic Acid

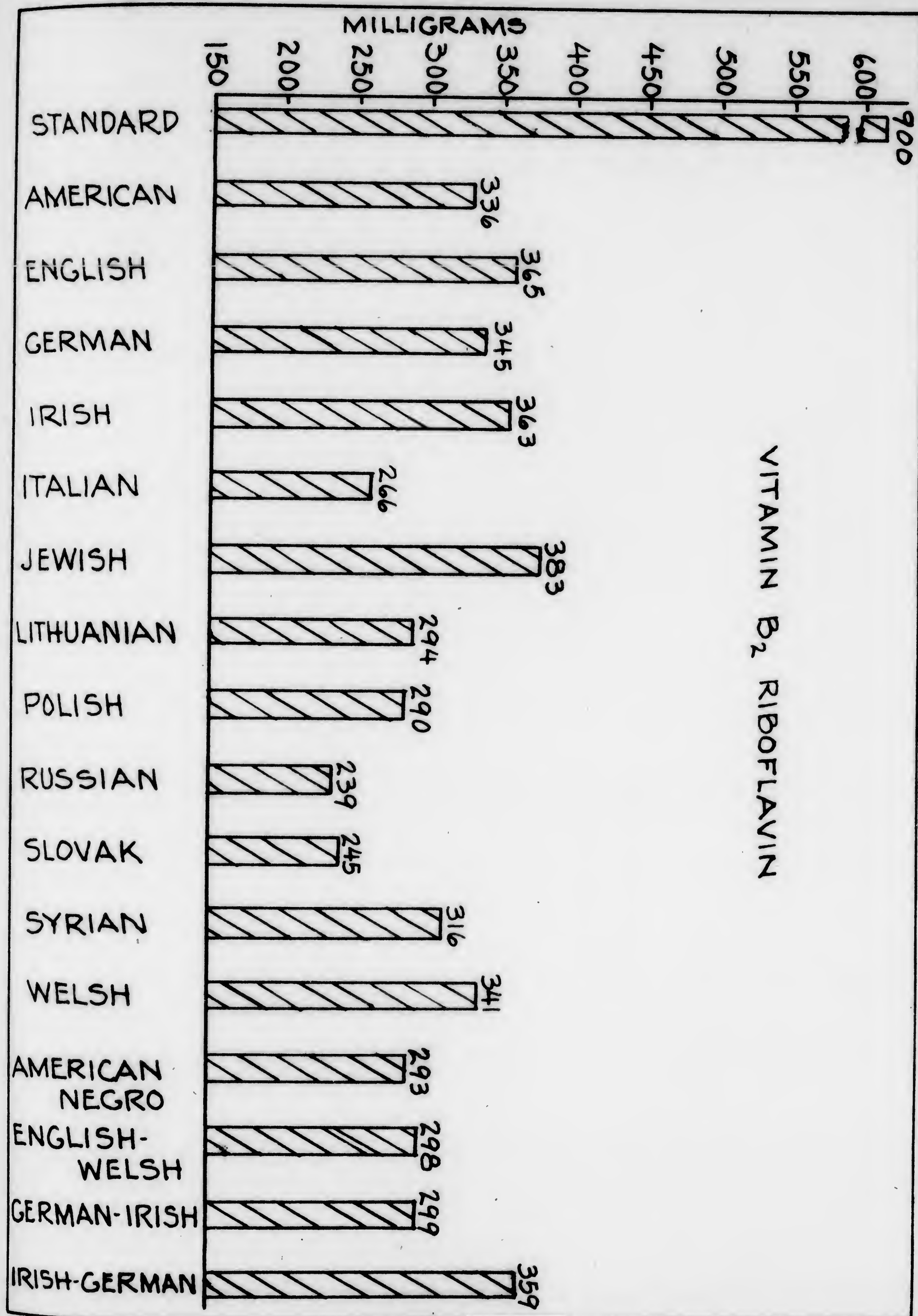


Figure 32 - Average Intake of Riboflavin

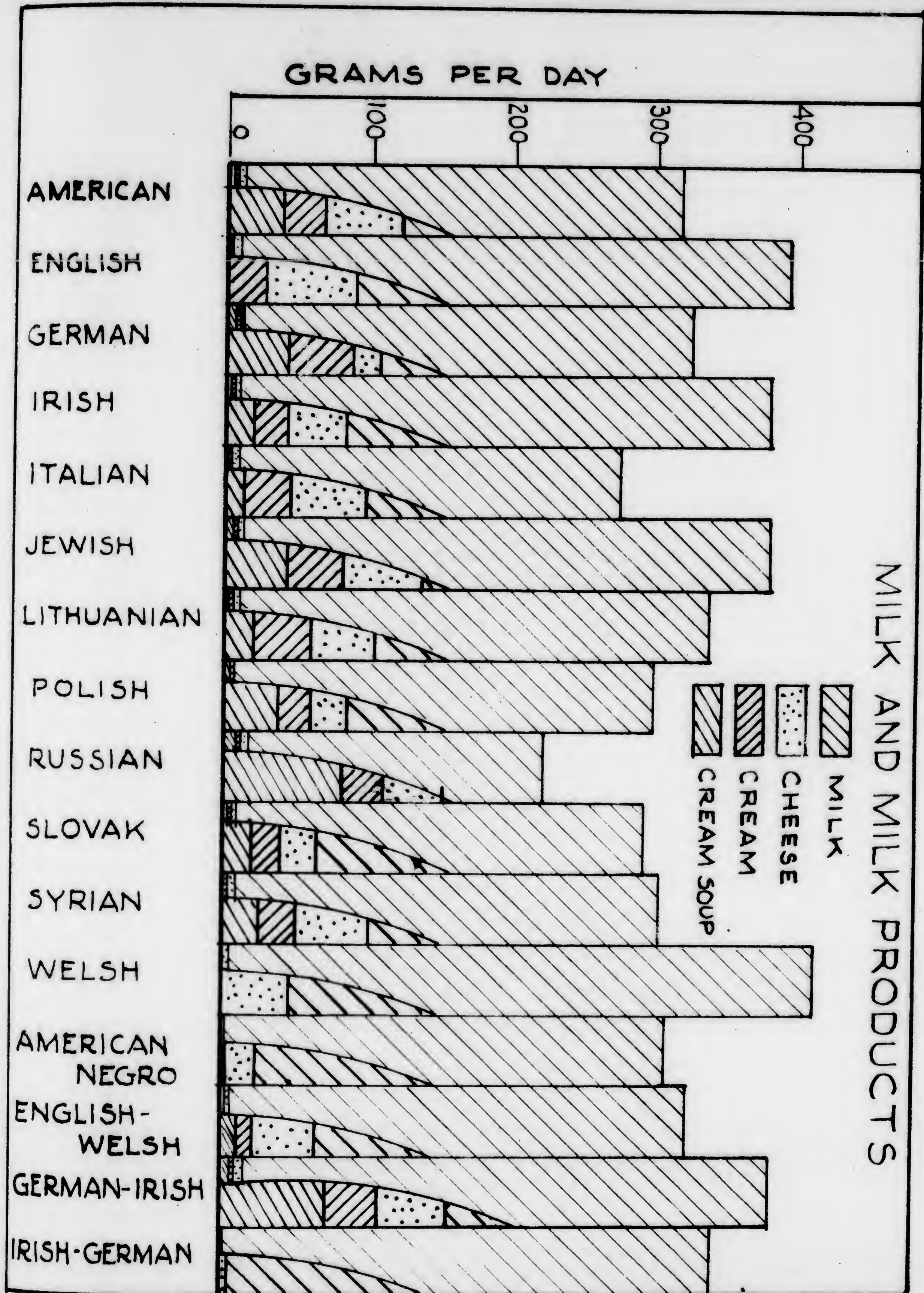


Figure 33 - Average Intake of Milk and Milk Products

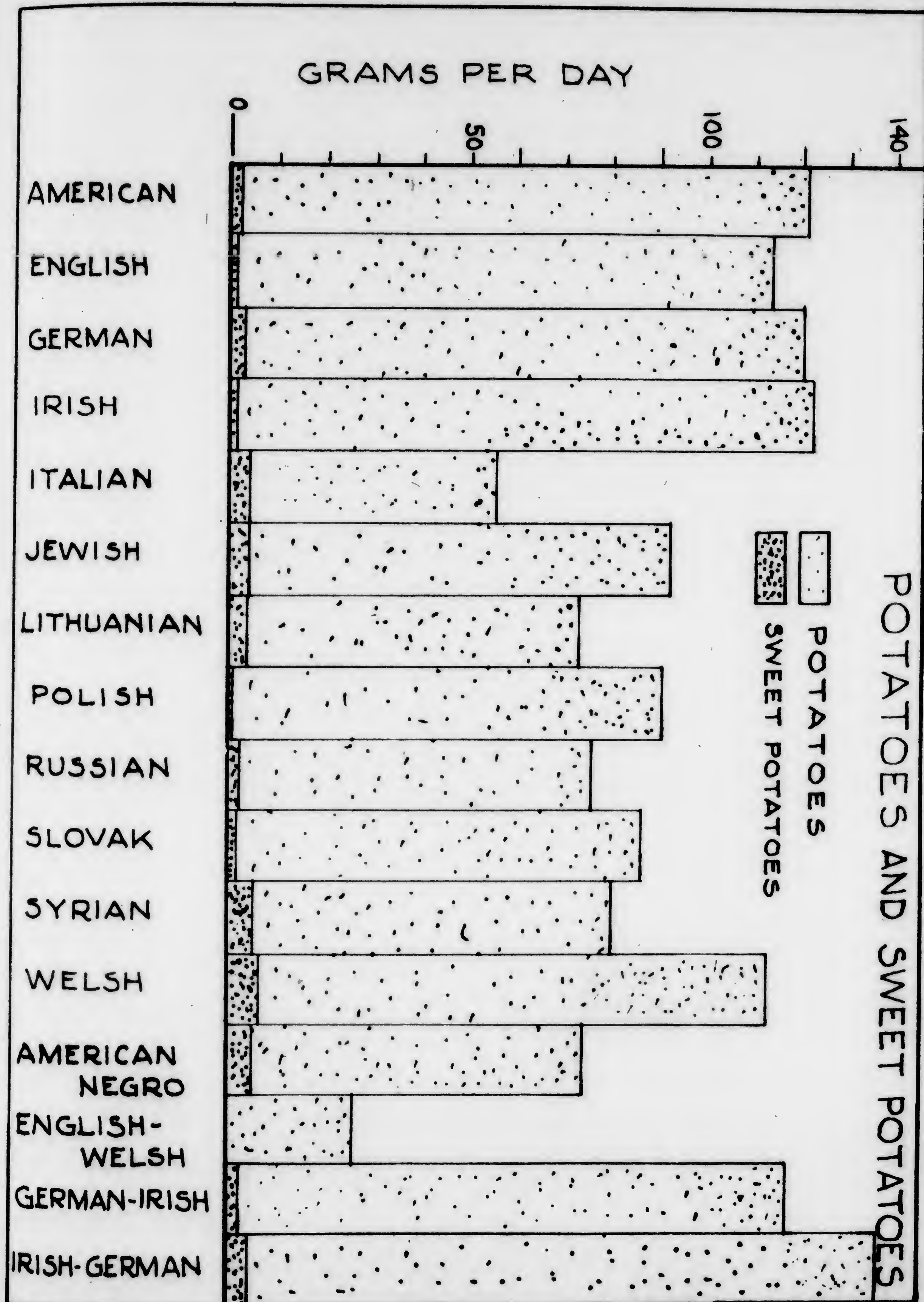


Figure 34 - Average Intake of Potatoes and Sweet Potatoes

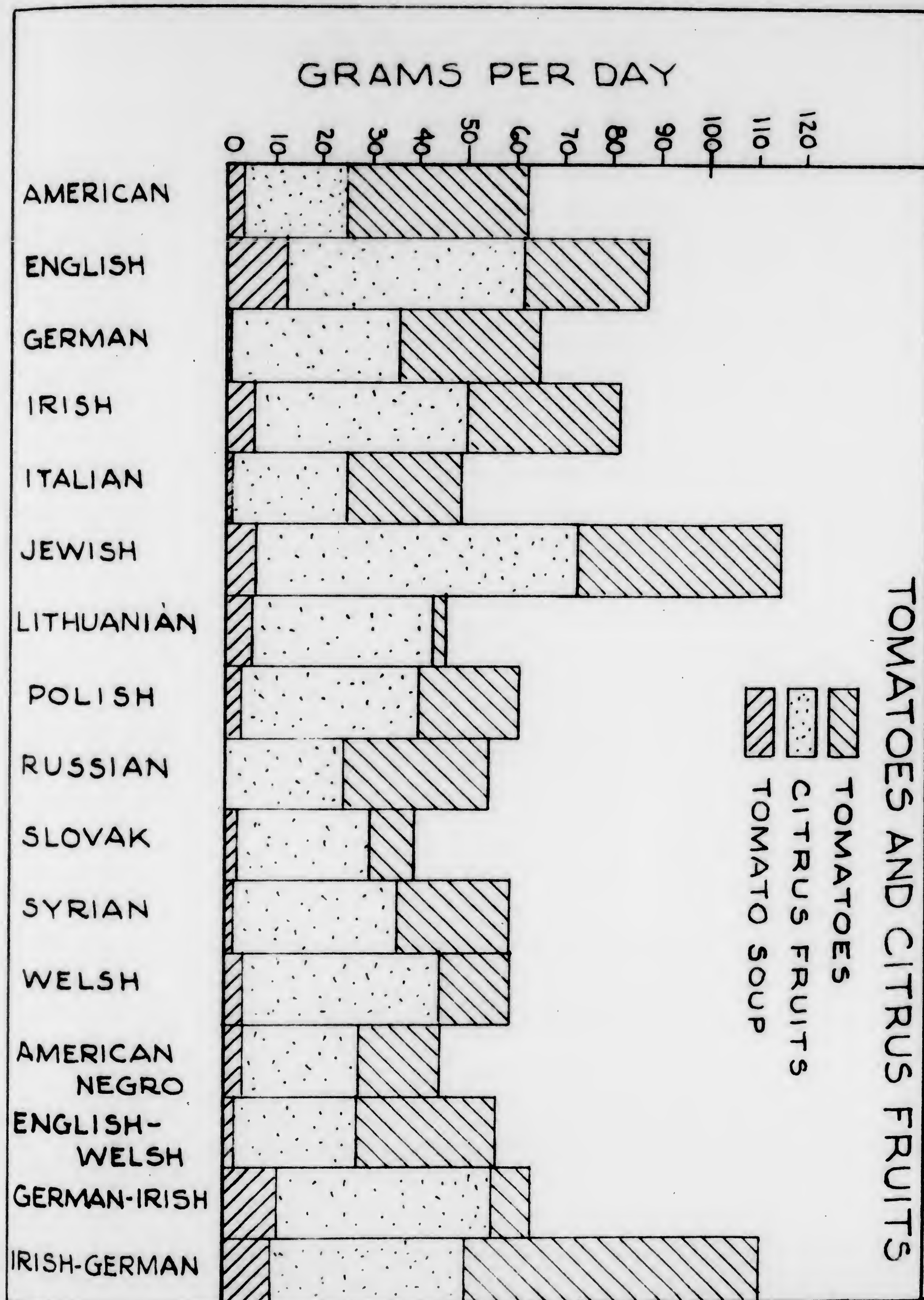


Figure 35 - Average Intake of Tomatoes and Citrus Fruits

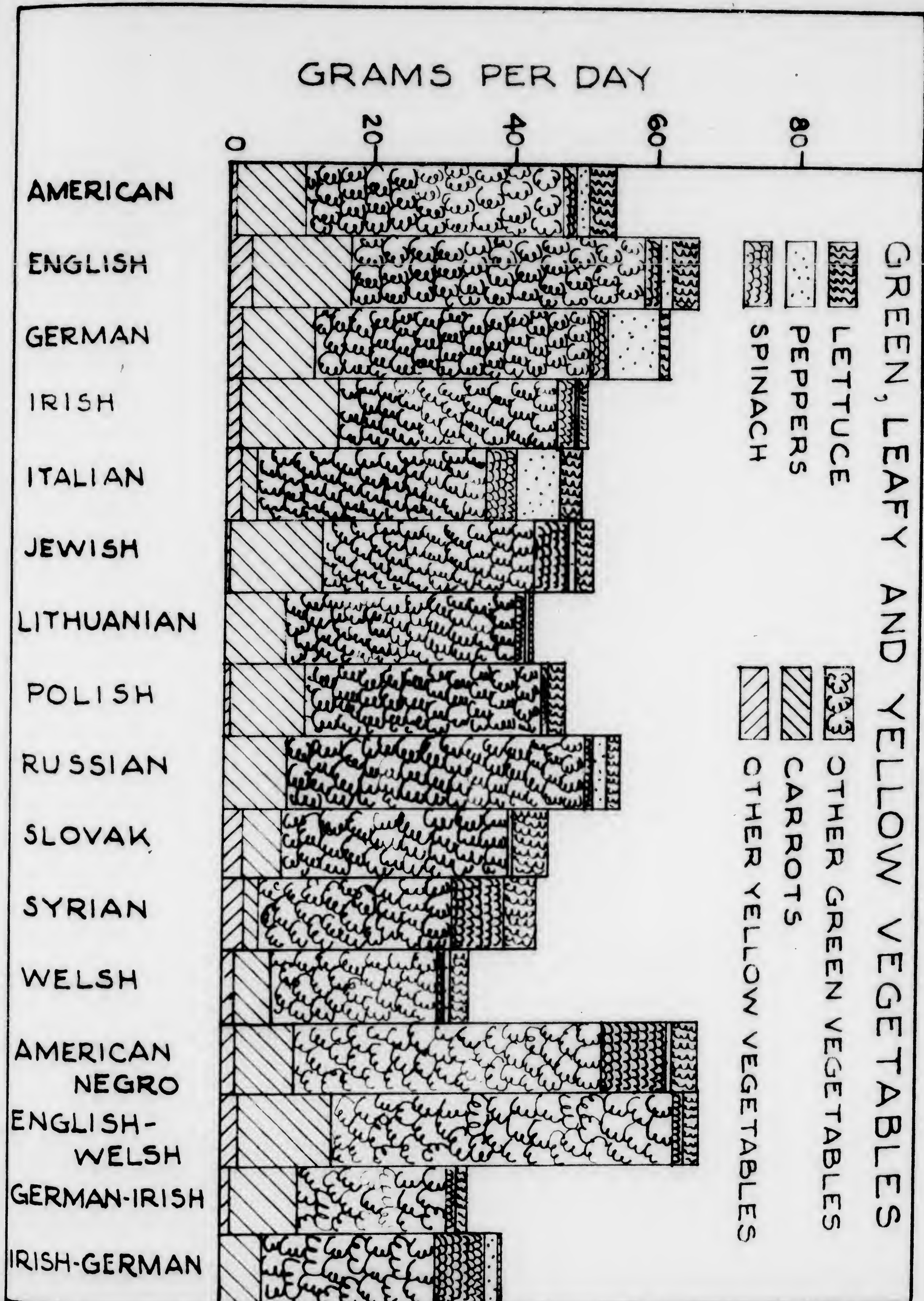


Figure 36 - Average Intake of Green, Leafy, and Yellow Vegetables

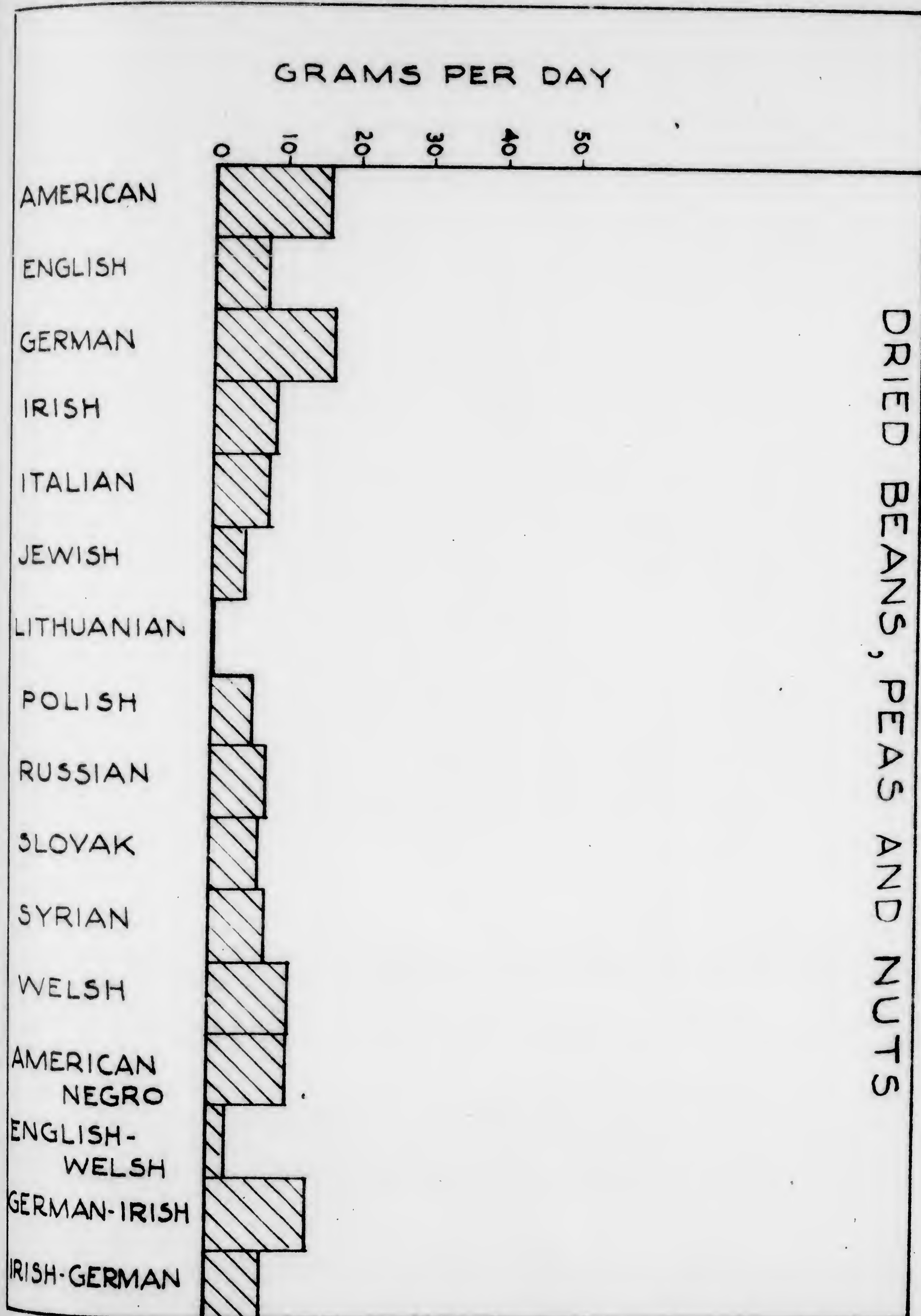


Figure 37 - Average Intake of Dried Beans, Peas, & Nuts

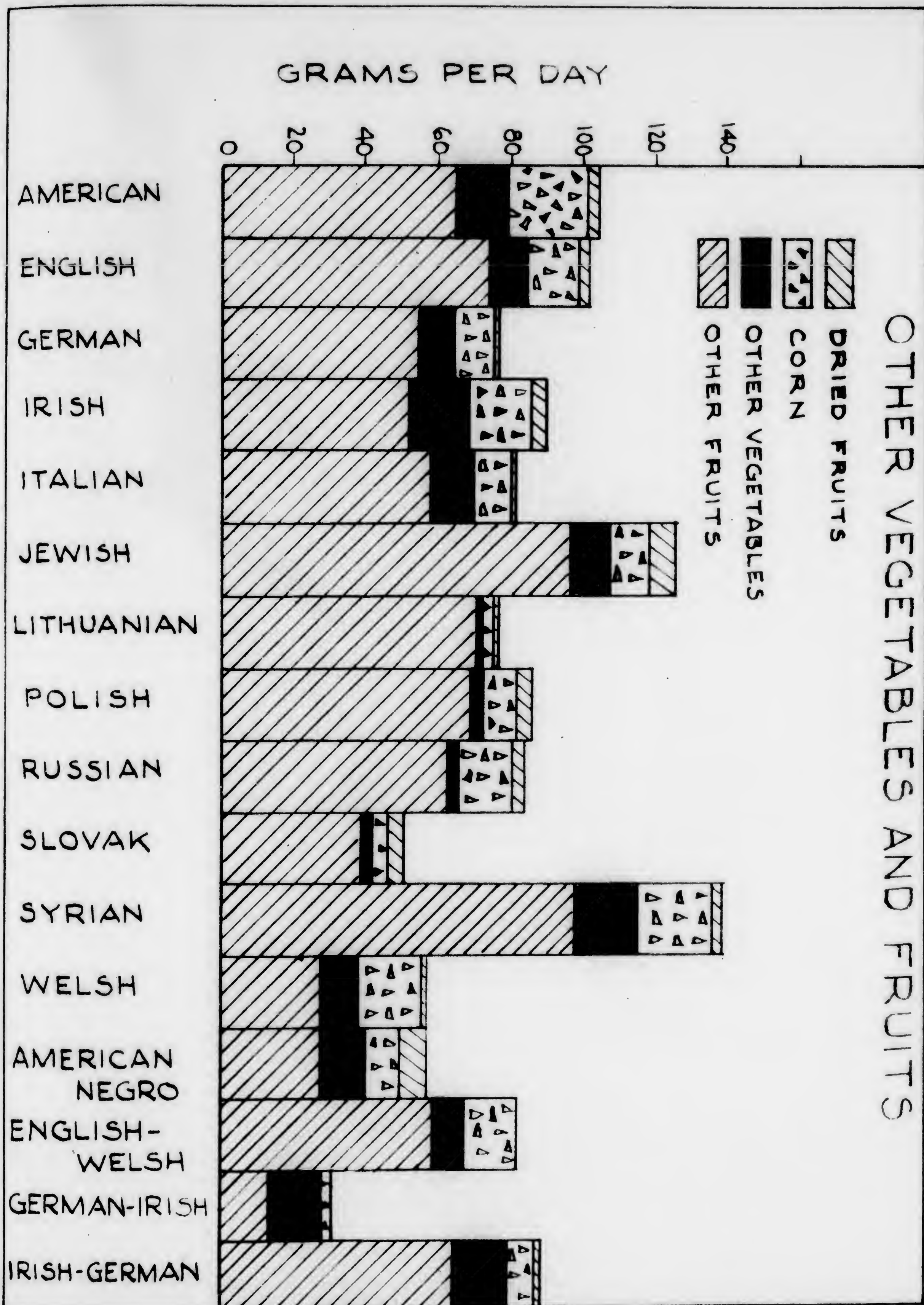


Figure 38 - Average Intake of Other Vegetables and Fruits

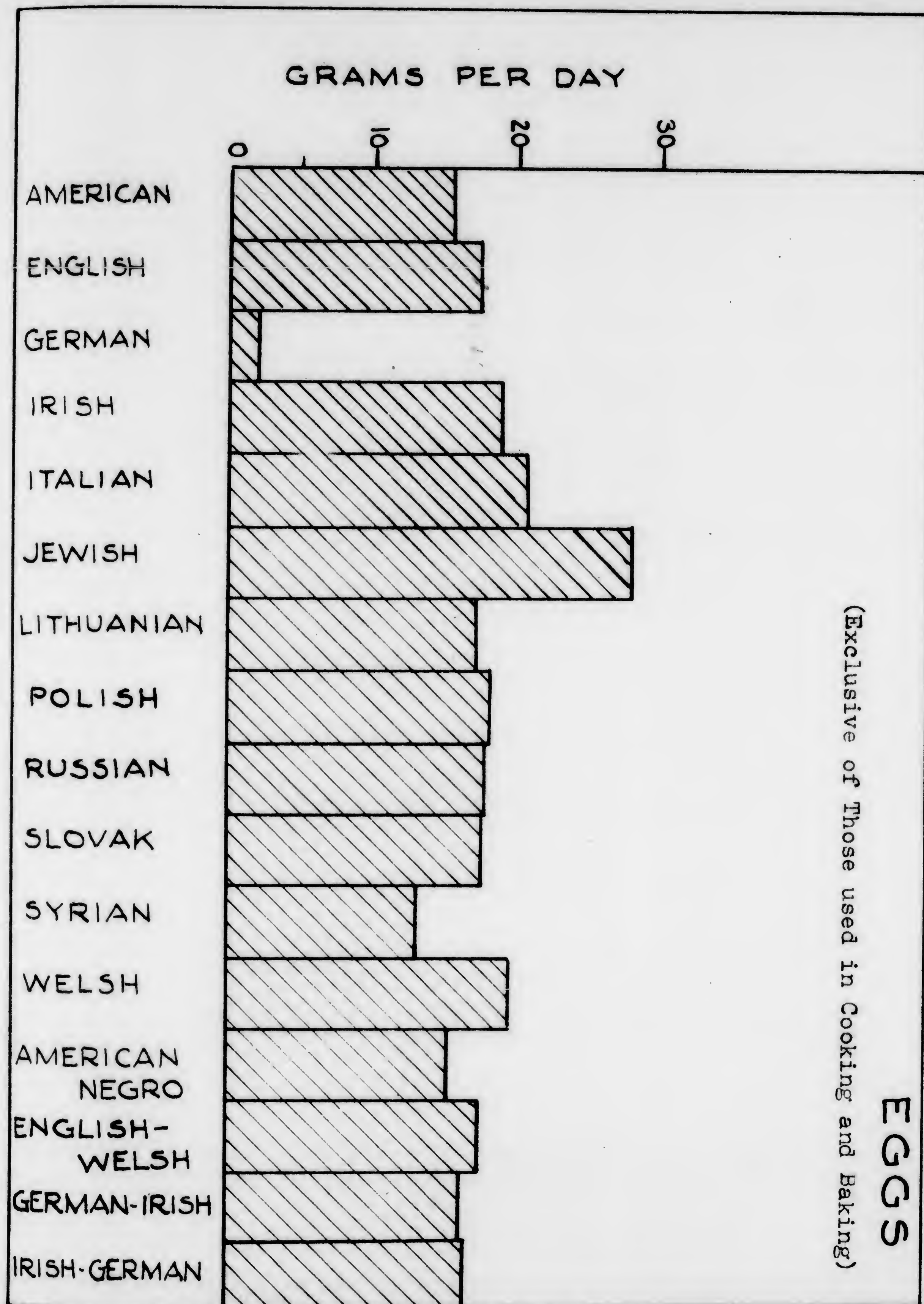


Figure 39 - Average Intake of Eggs

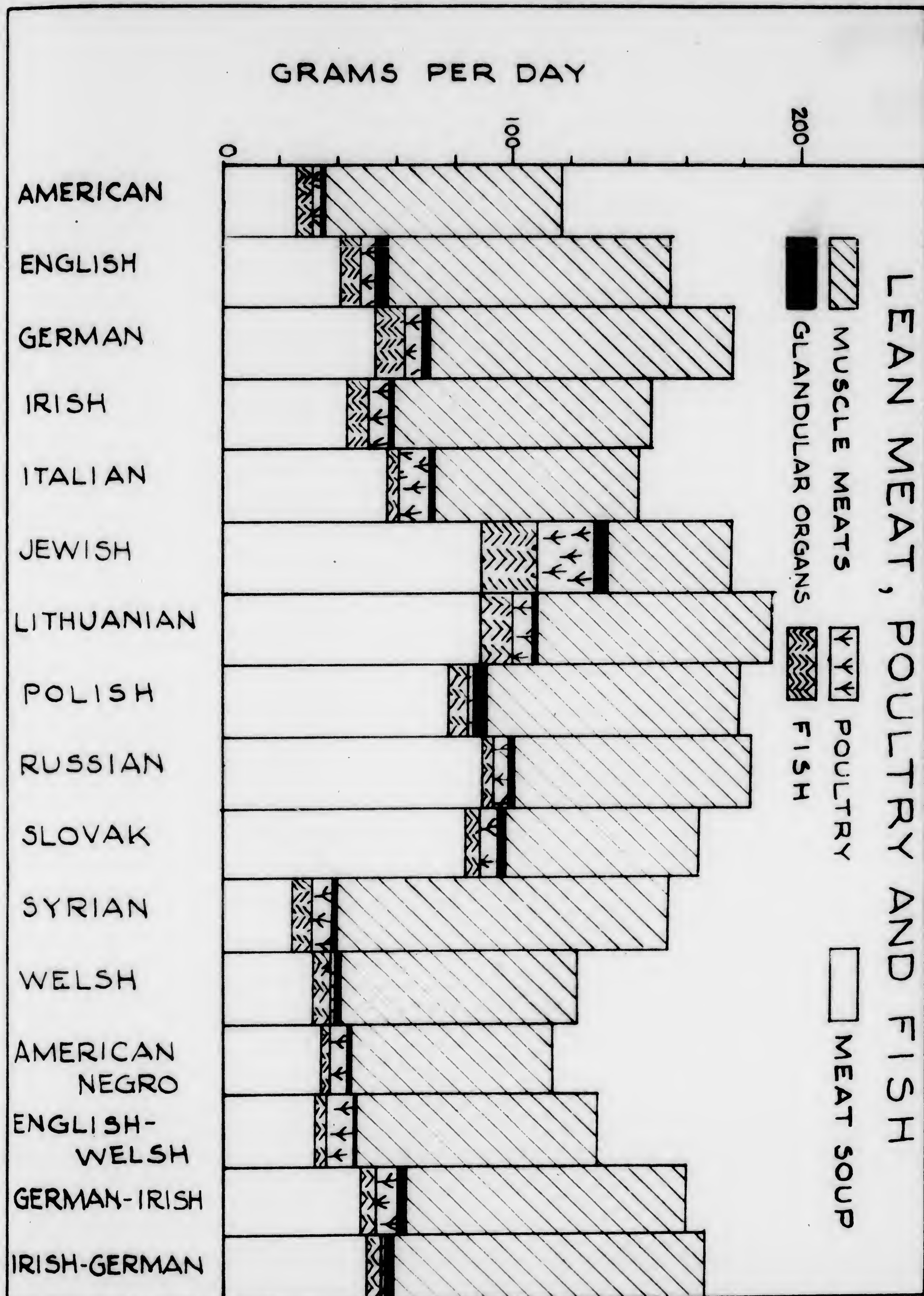


Figure 40 - Average Intake of Lean Meat, Poultry, and Fish

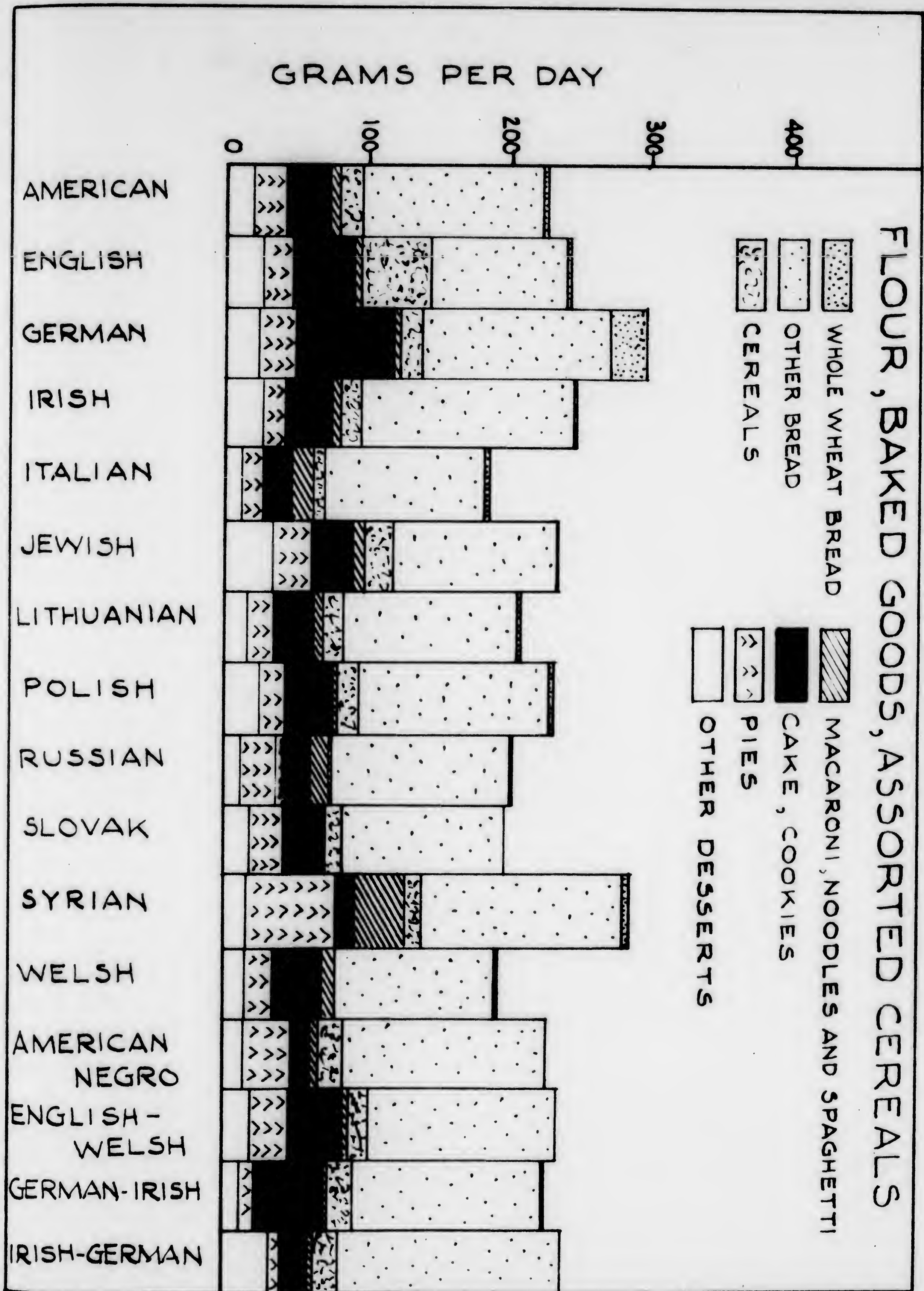


Figure 41 - Average Intake of Flour, Baked Goods, and Assorted Cereals

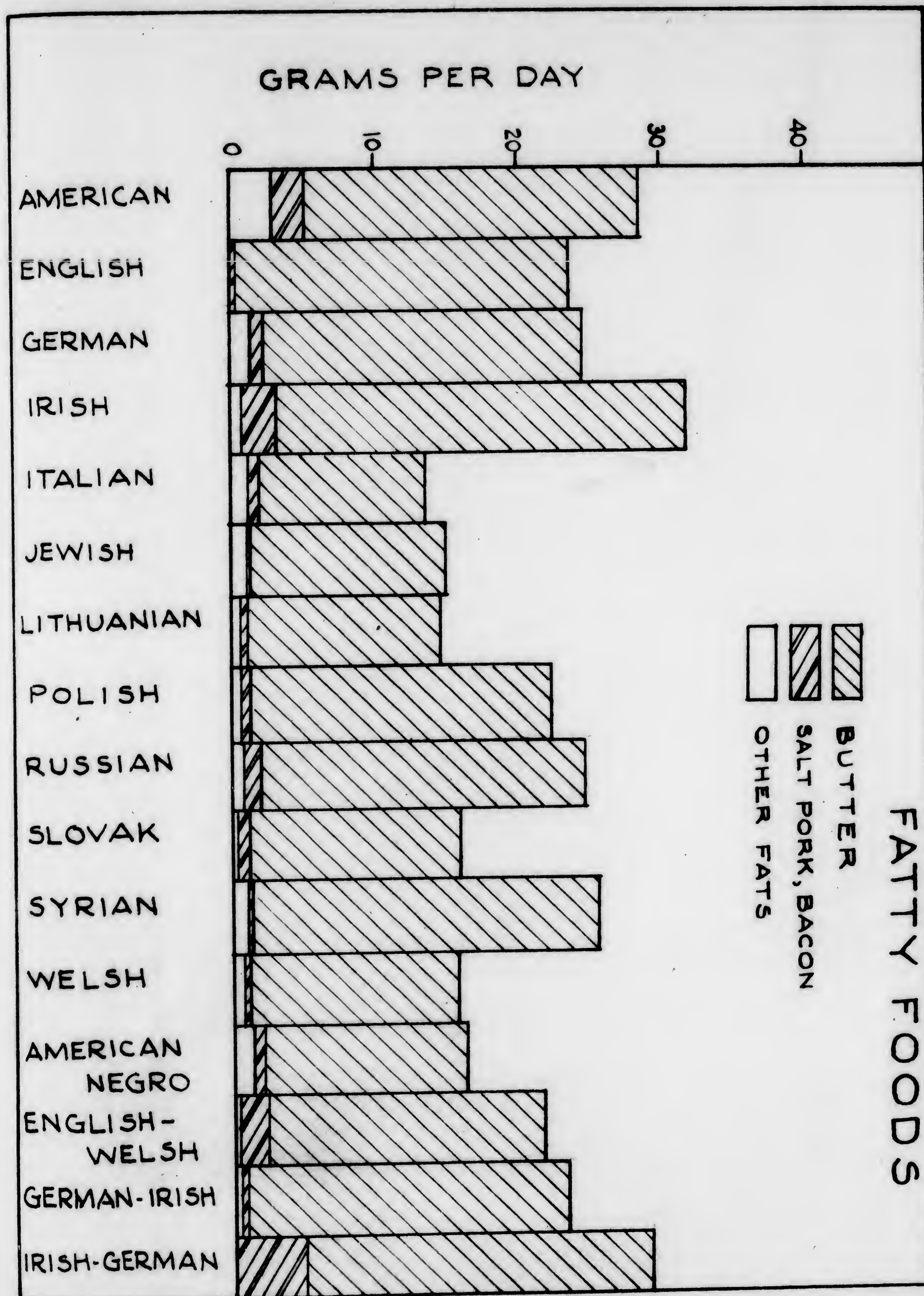


Figure 42 - Average Intake of Fatty Foods

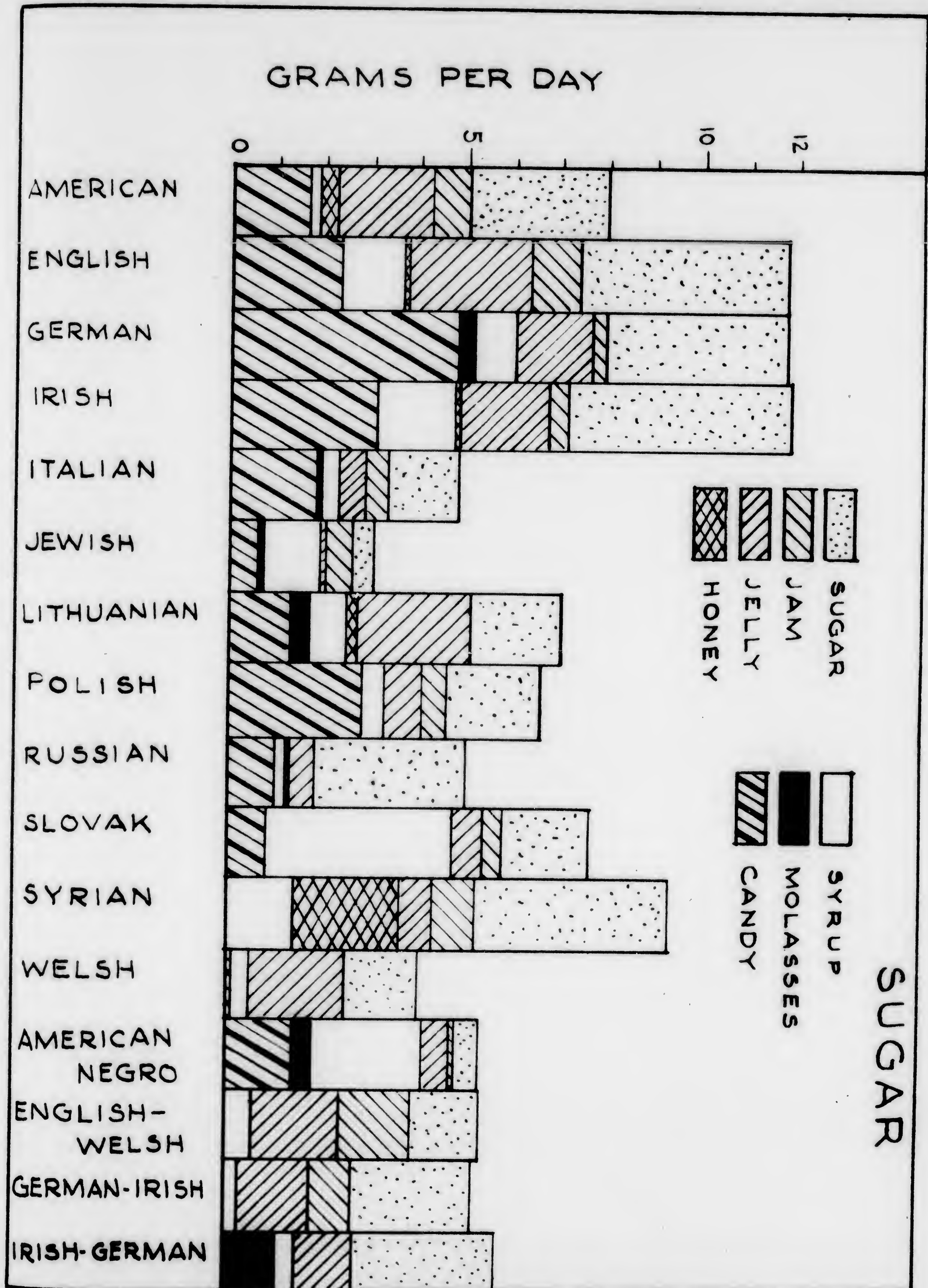


Figure 43 - Average Intake of Sugar

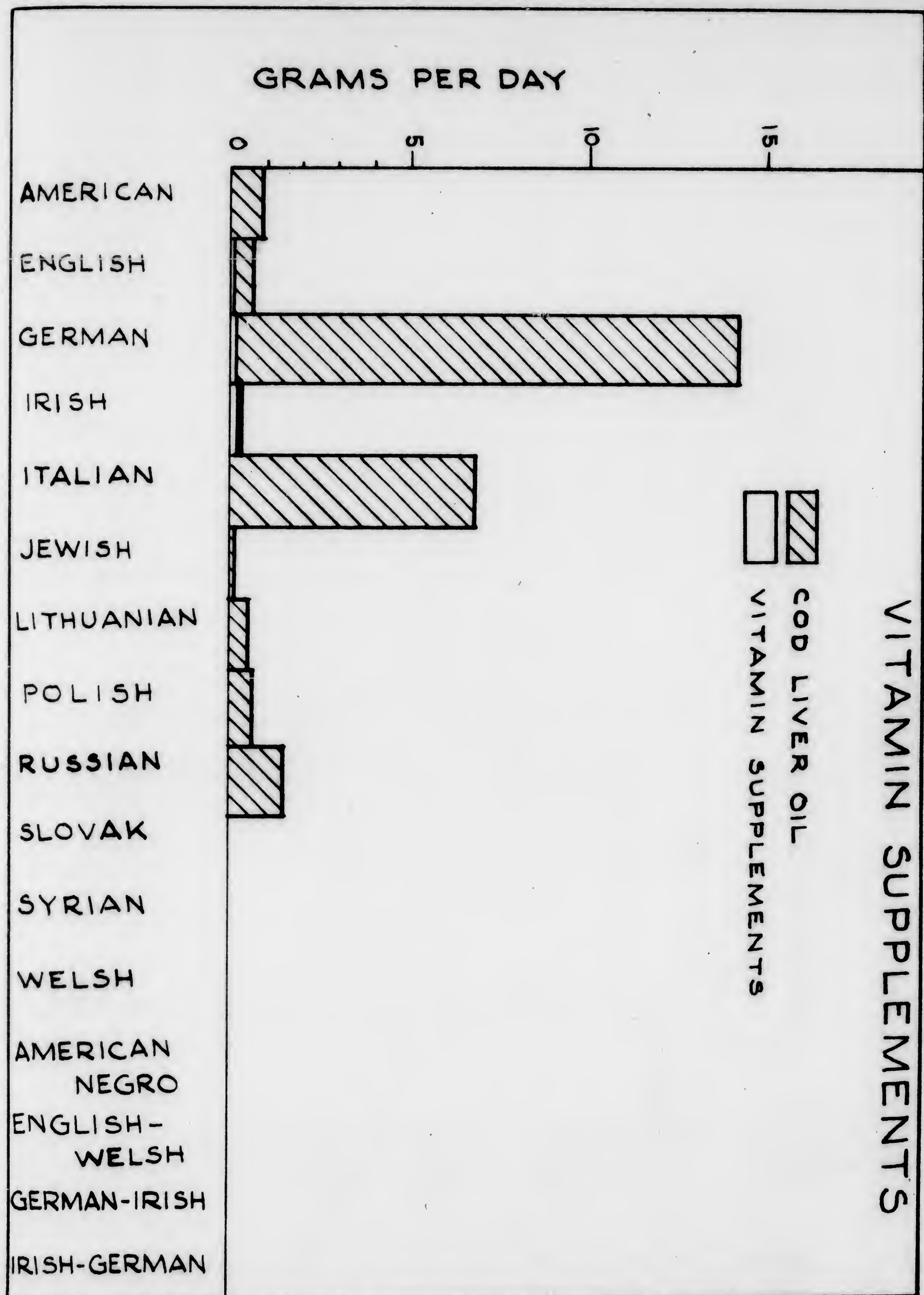


Figure 44 - Average Intake of Vitamin Supplements

DISCUSSION OF FINDINGS

The subjects of this study were 789 children of school age, all living in the anthracite coal region of Pennsylvania. The family histories gave 20 groupings of different pure nationality descent and 89 groupings in which the father and mother were each from a different pure nationality. The number of subjects varied in the groups from 102 in the American to one subject in each of 49 other groups.

In the first part of this discussion, only those nationality groupings were selected which contained ten or more subjects. There were sixteen of such groupings, as follows:

1. American 102 subjects.
2. English 29 subjects.
3. German 34 subjects.
4. Irish 65 subjects.
5. Italian 61 subjects.
6. Jewish 42 subjects.
7. Lithuanian 28 subjects.
8. Polish 69 subjects.
9. Russian 31 subjects.
10. Slovak 17 subjects.
11. Syrian 32 subjects.
12. Welsh 17 subjects.
13. American Negro 14 subjects.
14. English-Welsh 10 subjects.

15. German-Irish 10 subjects.

16. Irish-German 10 subjects.

In the last three groups, the racial or national background of the mother is listed first and that of the father is listed last.

In the second part of the discussion, all groups are considered, with the dietary habits and nutritional well-being of the children with one part of a certain racial or national background compared with those in which both parents are of the same descent.

FINDINGS ON SIXTEEN MAJOR RACIAL AND NATIONAL GROUPS

Income, Education, Physical Home

The average class for the incomes of the families of all of the children fell between a high value of class 3.1 for the Jewish and a low of class 4.2 for the American Negro out of a class range of 1 - 5, with Class 1 the highest class. The English and the Welsh were next to the Jewish in income. Each averaged class 3.2. The German-Irish averaged class 3.9, which is lower than any of the nationalities except the American Negro. It should be remembered that Class 1 includes incomes of \$5000 and over, with classes 4 and 5 falling below \$1000, and hence it is seen that the average family incomes of none of the groups in the study were high.

The average family education class of the groups of children showed a spread from class 3.4 for the Jewish to class 5.0 for the German-Irish, and Lithuanian respectively. All of the other racial or national groups in the range of class averages from 3.9 to 4.9. The English average class was next highest to the Jewish. From this it is seen that the educational level of the families tended toward the lower rather than the higher classifications used in the Pennsylvania mass studies in human nutrition, and that most of the parents were only of high school level or below. Moreover, the spread in parental educational level of the 16 groups under discussion was not great.

There was a spread only of 21 points between the highest

and the lowest average physical home rating among the 16 groups. The English had the highest average rating, which was 85 points. The Jewish and the German-Irish were next, each having average scores of 84 points. Twelve other groups had average scores between 72 and 80 points. The average score of the American Negro was 64 points, or eight points lower than any other group. The average physical home classes place 15 groups in Class B and one in Class C. Since there is such a similarity in physical home rating, this should not be an important factor for variation among the racial and national groups.

The highest physical home rating of the Jewish group may be accounted for by their income and education averaging the highest. The same analysis may be made for the English who also have high incomes, education and physical home rating averages.

The lowest physical home rating which is that of the American Negro may be related to their average income which was lowest for all of the national and racial groups.

It is interesting to note that the German-Irish, with one of the lowest average education scores, and the next lowest average income rating were found to have an average physical home rating which was as high as that of the Jews.

In closing this part of the discussion it should be repeated that family income and educational ratings of the children in the study tended to be low, that the physical home ratings were medium, and that the spread of the three socio-

economic factors namely, income, education, and dwelling was sufficiently small to preclude them from being the chief factor in determining differences in food habits and nutritional status of the groups in the study.

Responses to Nutrition Tests

Physical Examination - The Jewish children had the highest average visual physical examination rating, which was 82 points. (See Figure 4). The German-Irish average rating was 81, while the American Negro and Irish, each, had an average of 80 points. The lowest visual physical examination ratings were for the Lithuanian and Russian groups. This rating was 76 points. Eight of the 16 groups had an average rating either of 77 or 78 points.

The average physical examination class for all of the groups fell between 1.7 and 2.2. (See Figure 5). The Jewish children again had the highest class average, with the English ranking second. The Germans had the lowest visual physical examination class average.

Dental Examination - The American Negro showed the highest average dental examination rating; this was 8.2 points. (See Figure 6). Blackerby (1) reports in his study of finding fewer dental defects among Negro children than among White children. He found 2.29 average number of dental defects for a negro child and 4.16 average number of defects for a white child.

The Jewish average rating was 7.6 points, which is just below that of the American Negro. The lowest average dental

rating (6.0 points) was for the Russian group. Other low average ratings were shown by the Slovak, English-Welsh, and Lithuanian children.

In, the dental examination class averages, as shown in Figure 7, the American Negro was again highest. The Jewish were next with an average class of 1.9. The Russian, English-Welsh, Lithuanian, and Slovak averaged the lowest classes of 2.6 and 2.7.

Fourteen of the racial or national groups found were from class 2.1 to 2.7 in dental classification. This placed the groups as average to slightly above average for their dental rating.

Hemoglobin - The average hemoglobin, (Figure 8), ranged from a high value of 13.79 grams per 100 c.c. of blood for the English-Welsh to a low of 12.80 grams for the American Negro. All but two groups had average hemoglobin values above 13.00 grams.

The average hemoglobin class, (Figure 9), ranged from 1.1 for the English-Welsh to class 1.7 for the Welsh and American Negro. All of the groups fell between classes 1 and 2, which places them well above the average for blood hemoglobin.

Plantar Contact - The sitting plantar contact class average for all of the racial and national groups of children came within the range of one class (See Figure 10). The Irish, American Negro, and English-Welsh children were highest,

with an average class of 1.5. The Polish averaged 2.5 which was the lowest for any of the groups. The average throughout, with respect to this test, were relatively high.

The average for the standing plantar contact class (Figure 11), ranged from class 1.4 for the Welsh to class 2.6 for the German-Irish. All groups were relatively good for standing plantar contact.

Slump During Standing and Sitting - The American Negro showed the greatest average slump during standing. (See Figure 12). His class average was 1.9. The Lithuanian and the Irish-German averaged class 1.0, showing that they had the least slump. Ten of the groups were in an average class of 1.1. These represent extremely high averages throughout.

The American Negro also had the greatest slump during sitting (class 3.4), as well as during standing, as shown in Figure 13. The German-Irish had the least average slump during sitting (class 1.6). Seven of the groups scored an average class of 2.5 or below in sitting slump.

Pryor Weight Status - All of the racial and national groups averaged greater than the standard in weight, according to the Pryor standards. (See Figure 14). The range was from ± 5.4 pounds for the Russian to ± 16.7 pounds for the Jewish. Seven of the groups were within the ± 10 pound range which is rated as Class 1 in this study. Nine groups (more than one-half) averaged more than 10 pounds over weight according to the standards used. The percentage of children which were

over-weight, and those which were under-weight in each group, by the Pryor standards, are as follows:

Percentage of over-weight children in each group.

American	22.6%
English	55.2%
German	47.1%
Irish	49.2%
Italian	39.3%
Jewish	61.9%
Lithuanian	57.1%
Polish	32.4%
Russian	32.3%
Slovak	64.7%
Syrian	68.8%
Welsh	17.6%
American Negro	21.4%
English-Welsh	20.0%
German-Irish	60.0%
Irish-German	30.0%

Percentage of Under-weight children in each group.

American	5.9%
English	not any under-weight
German	2.9%
Irish	1.5%
Italian	1.6%
Jewish	not any under-weight

Lithuanian	not any under-weight
Polish	5.8%
Russian	9.4%
Slovak	not any under-weight
Syrian	not any under-weight
Welsh	not any under-weight
American Negro	7.1%
English-Welsh	not any under-weight
German-Irish	not any under-weight
Irish-German	not any under-weight

It should be noted in passing that the Pryor standards are based upon measurements of large numbers of American children, and hence that their use with other racial and national groups may not be valid. They are used, however, for rough comparative purposes. The group which would be expected to differ most widely in body build from American children - namely, The American Negro, has been found by Schultz (13) to differ little from white Americans in physical build. This investigator studied 16 Negroes as to nutritional status, physical status, including lung volume and its sub-divisions, blood and "available fluid" volumes, basal oxygen consumption, heart rate and blood pressure, and response to exercise including both viscular and blood changes. He reported that the weight of the Negro boys related to the skeletal build compares to the standards set up by McCloy for American children. This investigator did not report on

food consumption and its relation to the physical status.

Biophotometer Test Response - The Irish-German group averaged the lowest number of millifoot candles (1.0210) for the bright light test of the biophotometer. (See Figure 15). The German group required an average of only 1.0281 millifoot candles in this test, which placed them second in this test. The other groups had an average of 1.1140 millifoot candles or more for this test. The Italian required the greatest average millifoot candles of 1.4841. The Irish required 1.4369 and the German-Irish 1.4203.

The class averages for the bright light biophotometer test and the total integration values showed the same general trend as the millifoot candle average values. These ranged from class 3.0 to class 3.6, showing a generally low darkness adaptation status.

Capillary Wall Resistance - All of the groups were in the same average class with respect to the capillary wall resistance test. (See Figure 18). The American Negro averaged the highest class of 1.0. The Syrian class average of 1.4 was the lowest for the groups. All the national and racial groups rated high in this particular test.

Skeletal Status - The average group rating for the skeletal maturity age compared with the chronological age ranged from +0.9 months for the Syrians to - 8.8 months for the Welsh. This comparison was made according to the Todd Standards (Figure 19). The classes of skeletal maturity follow

in the main the raw data for this factor, with the Welsh and the American Negroes tying for the lowest classification. As in the case of the weight standards, the Todd skeletal maturity standards were based upon X-rays of American children, and hence may not be applicable to children of a variety of racial and national descents.

The average mineral density class by racial and national groups (Figure 21) ranged from class 2.1 for the American Negro to class 3.5 for the Welsh. Mineral density was relatively low throughout most of the groups.

Intake of Nutrients

As mentioned under Plan of Procedure, all values for intake of the respective nutrients have been calculated on the unit person basis of the Bureau of Home Economics so as to equate the children to a somewhat comparable age and sex basis.

With respect to energy intake, no group of children met the 3000-calorie standard recommended by the National Research Council (3). The Slovaks averaged 1685 calories (See Figure 22). The Italian, American Negro, and Russian were just above the Slovaks in energy intake.

The German group averaged 2410 calories, which was the highest average intake. The Irish, English, and Irish-German had caloric intakes just lower than the Germans.

It is surprising to find the generally low caloric intake in the face of general apparent over-weight. Particularly

is it noteworthy that the Italian children, who were seriously low in caloric intake, on the average, were not under-weight according to the standards, and that the Slovaks, who were still lower in energy consumption, had a considerable percentage of over-weight in the group. It should be stated here that the weight standards, aside from the possible fallacy which has been presented, are susceptible to another error in that the author of the standards recommends that, if a child does not fall within the height range for his age, he be judged with the children of a lower age group, where his height may fit. This tends to place children who may be short for their age into a group of younger children, thus giving spurious values for their weight status. Many children in this study were too short for their own age group, and hence were judged as to weight status by the method just mentioned.

A better criterion of physical than weight is probably found in skeletal status. Here a closer relationship between caloric intake and skeletal state than between the former and weight is apparent in general, although there is not absolute agreement throughout.

Protein - No group met the 70-gram protein standard recommended by the National Research Council. The Slovaks had the lowest average consumption of 42.9 grams of protein. (See Figure 23). The German, English, and Syrian children were the highest average consumers of protein, with intakes

of 57.6, 57.4 and 57.3 grams, respectively, twelve of the groups had a daily average intake of 50 grams or more of protein. The relatively low protein intake in general may be related to the comparatively poor skeletal status of the children in most of the groups.

Fat - The Germans had the greatest average fat intake (78.8 grams) as seen in Figure 24. The Irish, English, Syrian, German-Irish, American, and Irish-German all had an average intake of fat above 70 grams daily.

The American Negro had a fat average intake of 54.7 grams. The Italian average fat intake was 55.8 grams. These were the lowest average fat intakes.

Carbohydrate - The Italians had the lowest average carbohydrate intake of (157.1) grams. (See Figure 25). The Slovak, Russian, and American Negro also had lower average intakes of carbohydrates.

The Germans had the highest average intake, that of 221.0 grams of carbohydrate. The English, Irish, Welsh, and Irish-German groups all consumed more than 200.0 grams of carbohydrate daily.

Calcium - No nationality met the standard of 0.8 grams of calcium recommended by the National Research Council. (See Figure 26.)

The Russians averaged the lowest calcium intake (0.30 grams). The Slovak, Italian, Polish, and Lithuanian all averaged below 0.40 grams of calcium intake. This is only one half

of the total requirement. This low calcium intake by most of the groups is undoubtedly related to the retarded skeletal maturity age and to the low mineral density classes of most of the racial and national groups. The narrow range of calcium at near the level of one-half the recommended allowances, and the narrow range of the skeletal mineral density classes, most of which are comparatively low, show an undoubted relationship between these two factors.

Phosphorus - No nationality met the daily intake of 1.32 grams of phosphorus recommended by the Bureau of Home Economics. (See Figure 27.) The English, German, and Irish were just under this standard, with 1.28 grams, 1.24 grams, and 1.24 grams average daily intake, respectively.

The Slovak, Polish, and Italian groups had the lowest average phosphorus intake of 0.91 grams, 0.91 grams, and 0.96 grams, respectively.

The phosphorus levels of the different groups came closer to the recommended standard of the Bureau of Home Economics than did the calcium averages. This corresponds with the findings of Stiebeling and Phipard (12), and with those of Sanders (10).

Iron - Nine of the groups had daily average intakes greater than the 12.00 milligrams recommended by the National Research Council. (See Figure 28.) These were the German-Irish, the German, the English, the Irish, the Irish-German, the Jewish, the American, the Syrian, and the Welsh children. The German-Irish group had an average intake of 13.88 milligrams of iron. The Slovaks, on the other hand, had an intake of 9.65 milligrams,

and the American negro, the Russian, and the Italian children were also under an average daily intake of between 10.00 and 11.00 milligrams, which is considerably below the standard.

The hemoglobin averages for the group showed a very narrow spread which approached the optimum in all cases; and most groups had an average for this dietary factor which is not generally far below the standard.

Vitamin A. - The Jewish had the highest average vitamin A intake (7034 International Units), as will be seen from Figure 29. The English, with an average intake of 5386 International Units, were next high.

The Russians were lowest in vitamin A consumption, with an average intake of 3065 International Units. The Slovak, the Polish, and the Lithuanian groups all had vitamin A intakes below 4000 International Units daily.

All of the other 12 groups had a vitamin A intake of 4000 International Units or over.

The English and Jewish were the only groups that met the 5000 International Units standard recommended by the National Research Council.

No group met the 8000 International Units recommended by Munsell (7) for a mixed source diet.

The biophotometer bright light response showed all of the groups to be in Class 3 or below, which is in line with the fact that none of the groups met the recommended allowance for this nutrient.

Thiamin - The Slovak children, with 323 International Units of thiamin had the lowest average intake of this nutrient. (See Figure 30.) The Russian, Italian, Polish, and American negro groups were also low, with average intakes of 330 International Units, 338 International Units, 351 International Units, and 358 International Units, respectively.

The Syrians, with 470 International Units, had the highest thiamin intake. The English, Irish, and Irish-German all had average intakes over 450 International Units.

No group met the 1.8 milligrams (approximately 600 International Units) standard recommended by the National Research Council.

Ascorbic Acid (Vitamin C) - The Jewish group had the greatest average intake of ascorbic acid, 113 milligrams. (See Figure 31.) The English and Irish-German were also high in this respect. Each had an average intake of 91 milligrams.

The English-Welsh, with 57 milligrams had the lowest vitamin C intake. The American negro and the Polish children were also lower in this nutrient.

Eight of the groups met or exceeded in average intake the 75 milligram standard for vitamin C recommended by the National Research Council.

Although it has long been recognized by workers in the human nutrition field that capillary wall strength is not a specific test for avitaminosis C, nevertheless it is believed that general under-nutrition and prolonged low intakes of this vitamin will lead to a reduction in capillary wall resistance. All of the

groups rated above average to the capillary wall resistance test. This showed a relationship to the fact that eight groups met the optimum recommended standard, and that no group was below the 50-milligram minimum standard of protection for this vitamin suggested by Sherman (11).

Riboflavin (Vitamin B₂) - No nationality met the standard of 2.7 milligrams (approximately 900 Sherman-Bourquin units) recommended by the National Research Council. (See Figure 32.) All groups were more than 50 per cent. under the standard.

The Jewish had the highest daily intake of 383 Sherman-Bourquin units. The English with 365 Sherman-Bourquin units were next highest. Eight of the groups had average intakes of 300 Sherman-Bourquin units or over. Eight of the groups, or one-half of the total, had average riboflavin intakes below 300 Sherman-Bourquin units, less than one-third of the present requirement. The Russian group had the lowest intake, 239 Sherman Bourquin units.

General - The standard, high, and low values for the respective nutrients consumed by the different groups were as follows:

	<u>Per Unit Person Standard</u>	<u>High</u>	<u>Low</u>
Energy	3000	2410	1685 calories
Protein	70	57.6	42.9 grams
Fat	none	78.8	54.7 grams
Carbohydrates	none	216.2	157.1 grams
Calcium	0.8	0.50	0.30 grams

	<u>Per Unit Person Standard</u>	<u>High</u>	<u>Low</u>
Phosphorus	1.32	1.28	0.91 grams
Iron	12.00	13.88	9.65 milligrams
Vitamin A	8000 International Units from a diet with con- siderable pro-vitamins	7084	3065
	5000 International Units for a diet in which most of the vitamin A is in the form of the vitamin itself.		
Vitamin B ₁	600	470	323 Interna- tional Units
Vitamin C	75	113	57 milligrams
Vitamin B ₂	900	383	239 Sherman- Bourquin Units

Comparison of Intake of Nutrients with Response to
Nutritional Tests

When the responses of the different racial and national groups to the 12 nutrition tests were arranged by rank order of scores and these scores were averaged, the groups with the best average score for the nutrition tests were those for the groups of children whose intake of the different food nutrients had met the recommended standard in the greatest number of nutrients.

The racial or national groups with the poorest average score for their rank order of nutrition test responses, had food intake which met the recommended standard in only one or two of the essential nutrients. This was also the case with the groups rating high by the visual physical examination made by a pediatrician. The groups with the six highest average

ratings for the physical examinations, had dietary intakes of the nutrients which met or exceeded the recommended allowances 11 out of a possible 48 times. The national or racial group with the eight lowest average physical examination ratings met or exceeded recommended dietary intake of these nutrients only eight out of a possible 80 times. It should be noted again that the number of nutrients in which the various groups were adequate was low in all cases, and that the average responses to the tests were low, and tended to show a very narrow average spread.

In closing this part of the discussion, it was found that energy, protein, calcium, vitamin A, vitamin B₁, and vitamin B₂ failed to meet the recommended standards in the case of all of the racial and national groups. Coupled with this there was found to be medium physical examination ratings, medium dental ratings, medium to high plantar contact and slump scores, poor darkness adaptation, and medium to poor skeletal status, in the main for the various groups. Iron and vitamin C were adequate, generally, and hemoglobin and capillary wall strength were high. Weight status tended toward adequate and even overweight, but this is not a good criterion of nutritional well-being, particularly since the standards were developed for American children.

Milk and Milk Products - The Welsh consumed the greatest amount of milk products (See Figure 33.) The English, German, Irish, and German-Irish were also higher than the other eleven

groups in milk consumption. The Welsh, the American negro, and the Irish-German children did not show any use of cream or cream soup. The Irish-German used very little cheese. The Russian and German-Irish were the greatest users of cream soups.

The English, Italian, American, and Jewish groups showed the greatest average use of cheese.

In no case did the average milk consumption exceed 420 grams, which is one and three-fourths cups per day; and one group (Russian) had an average consumption less than 1 cup.

In order to meet the nutrient intake recommended by the National Research Council for children, the intake of 720 to 960 grams of milk has been considered important.

Potatoes and Sweet Potatoes - The Irish-German children were the greatest users of potatoes, averaging 137 grams daily. (See Figure 34). The American, English, German, Irish, Welsh, German-Irish, and Irish-German groups all showed an intake of more than 100 grams of potatoes daily.

The largest quantity of sweet potatoes was used by the Welsh (6.3 grams daily), the American negro, and the Syrian groups.

The English-Welsh did not show an intake of any sweet potatoes, and they also had the lowest average intake of white potatoes, namely - 69.6 grams.

Tomatoes and Citrus Fruits - All of the groups used both tomatoes and citrus fruits to some extent. The Slovaks averaged the smallest combined intakes of these two kinds of foods, their daily intake being 40 grams, as may be seen in Figure 35.

The Lithuanian children consumed the lowest average intake of tomatoes.

The Irish-German and the Jewish children were the only two groups consuming more than 100 grams of tomatoes or citrus fruits or a combination of the two. The daily intake of this food group for all of the nationalities averaged between one-sixth and one-half of a cup measure.

Green, Leafy, and Yellow Vegetables - The American negro, the English-Welsh, and the English groups had the highest intake of green, leafy, and yellow vegetables. (See Figure 36.)

The Welsh and German-Irish had the lowest average use of this vegetable group.

The total average intake for all of the national and racial groups was between 35 grams and 70 grams daily.

Green vegetables other than the leafy ones were used more extensively than the leafy vegetables. Carrots constituted the most extensively used yellow vegetable. The German and Italian children made the greatest use of green peppers.

Dried Beans, Peas, and Nuts - The Germans used the greatest amount of dried beans, peas, and nuts, or 16.7 grams daily. (See Figure 37.) The American and German-Irish groups were also higher in case of this food group than were the others.

The Lithuanian and the German-Welsh reported the lowest intake of this group of legumes.

Other Vegetables and Fruits - The Syrian and Jewish children made the most extensive use of the general group of foods called "other fruits and vegetables." (See Figure 38.)

The German-Irish children showed the lowest average intake of this group of foods.

All of these national and racial groups showed an average intake of these foods between 30 and 150 grams.

More fresh or canned fruit was used generally than dried fruit.

More of the "other fruits" were used than "other vegetables." Corn was one of the "other vegetables" averaging high in use.

Eggs - The Jewish group gave the highest average intake of eggs other than those used in baking, as Figure 39 will show. They reported 28 grams used daily. This was slightly over one-half an egg, considering the average weight of an egg to be 50 grams.

The Germans were lower in use of eggs than any other national group. They reported using an average of two grams of this food daily.

The other 14 nationalities reported using between 13 and 20 grams of egg daily on the average - a relatively small fraction of an egg.

Lean Meat, Poultry and Fish - The Syrians had the highest intake of lean meat of any of the racial or national groups (113.3 grams). (See Figure 40.) The Jewish showed the lowest intake of lean meat (43.4 grams), but the highest average intake of poultry, glandular organs, and fish. The Jewish, Lithuanian, Polish, Russian, and Slovak groups reported the greatest intake of meat soup (nearly one-half cup daily),

whereas the Syrian, Welsh, and American children had the lowest average intake of this food product.

Flour, Baked Goods, Assorted Cereals - All of the national and racial groups used between 115 grams and 160 grams of white bread daily. The Syrians used the most whole grain bread (3.3 grams daily, on the average). Four groups did not use any whole grain bread whatever. These were the Slovaks, the American Negroes, the English-Welsh, and the Irish-German.

The German, English, Jewish, Syrian, and English-Welsh groups had the greatest use of desserts of the type which included cake, pie and other pastries.

The Syrian, Italian, and Russian groups were the highest users of macaroni, noodles, and spaghetti.

The Welsh made practically no use of cereals, while the Russian averaged only one gram daily.

Fatty Foods - The Irish averaged 28.7 grams of butter daily, as Figure 42 shows. The Syrian, American, Irish-German and English were also high in fat intake. They averaged more than 23 grams of fat daily. The Italians had the lowest average butter intake (11.7 grams). All of the other fifteen national or racial groups averaged nearly a tablespoon or more of butter daily.

The Irish-German children used 4.9 grams of salt pork. This was the highest average intake of any of the groups. The American used the largest amounts of miscellaneous other fats, averaging 3.1 grams daily.

Sugar - No national group used more than 12 grams of sugar daily. (See Figure 43) The English, German, and Irish averaged between 11 and 12 grams of this commodity, less than half of which was white sugar.

The Jewish reported the lowest use of sugar (about three grams daily).

The Germans made the greatest use of candy. The Irish-German children averaged the highest in molasses, while the Syrians were the highest users of honey.

Vitamin Supplements - Nine national groups used vitamin supplements. (See Figure 44) The Germans averaged the highest in intake of these supplements (14.2 grams), the latter being chiefly cod liver oil. The Italians were next highest in vitamin concentrate consumption.

The greatest use was made of cod liver oil.

The English, German, and Irish took other vitamin supplements besides cod liver oil. The Syrians, Welsh, American Negroes, English-Welsh, German-Irish, and Irish-Germans did not show any use of vitamin supplements at all.

A Summary of Nutritional Status, Nutrient

Intake, and Food Choices of the Major

Racial and National Groups

American - All of the findings concerning the responses to the nutritional status tests, the consumption of nutrients, and the intake of major food groups by the American born children of American born parents and grandparents (except Jewish

and Negroes) may be summarized briefly thus. The American child ranked sixth in family income; fourth in family education; fifth in physical home; fourth in physical rating by a pediatrician; seventh in dental rating; fifth in hemoglobin rating; sixth and fifth, respectively, in sitting and standing plantar contact; second and eleventh, respectively, in standing and sitting slump; third in weight status; ninth in darkness adaptation; second in capillary wall strength; eighth in skeletal maturity; and eighth in skeletal mineral density.

In intake of the respective nutrients, he was adequate, according to the standards used in this study, only in iron, and vitamin C; this will probably account for his generally indifferent response to the various tests for nutritive state. Aside from being below the standard in all save two of the nutrients, he was exceedingly low in protein, calcium, vitamin A, and vitamin B₂.

Among the different racial and national groups, he was tenth in milk, with a consumption only slightly over a cup a day; fourth in potatoes, with one large potato daily; seventh in tomatoes and citrus fruits, averaging only about one-fourth cup a day; sixth in green, leafy, and yellow vegetables, averaging about one-half serving daily; second in dried beans, peas, and nuts, with about one level tablespoon of these legumes daily, on the average; third in all other vegetables a day, averaging one large or two very small servings; twelfth in eggs, with about one-third egg daily; eleventh in meat (in-

cluding lean meat, poultry, fish, and glandular meats), eleventh in liver, included also in the latter category (one good serving of meat in general and one one-hundredth of a serving of liver, daily), and eighth in fish (about one-twentieth of a serving); fourth in butter, averaging one and one-half tablespoons daily; second in fats, with one teaspoon daily; fourth in sugar, with an average of one and one-half teaspoon; eighth in cereals, including an average of five slices of bread, one-half a serving of cereal, a teaspoon of macaroni, noodles, or spaghetti, on the average; ninth in desserts (other than fruit), including two small cookies or one small piece of cake, one-sixth of a piece of pie; and fourth in vitamin supplements, with 0.9 grams of cod liver oil daily. He was second highest in the use of soft drinks, although the average was only about a bottle a week.

English - The average English child in the study was adequate only in phosphorus, iron, and vitamin C, and he met the standard of 5000 International Units of vitamin A. Since he was relatively low in cod liver oil consumption, this standard is probably not adequate since most of the vitamin A in the English dietary was in the form of the pro-vitamin. Although he was first in physical home rating and second in family income and education, he was eleventh in over-all ranking for the various nutritional status scores, with good hemoglobin, poor dental status, retarded skeletal maturity and poor mineral skeletal density, and extremely poor darkness

adaptation.

In food consumption, the English child was second in milk consumption, with about a cup and a fourth a day; second in potatoes, averaging one medium to one large potato daily; third in tomatoes and citrus fruits, with about one-third of a cup daily; second in leafy, green and yellow vegetables, with about one-half of a serving daily; eighth in legumes, averaging one-half a tablespoon each day; fourth in other vegetables and fruits, with one good serving a day; eighth in eggs, with about one-third of an egg each day; one-fifth in meat consumption, with one large serving of meat a day, and about one-sixteenth of a serving each of liver and of fish a day; fourth in butter, averaging one and one-half tablespoons a day, and twelfth in other fats; first place (shared with the average German child) in sugar, the latter being used chiefly in tea and coffee; ninth in cereals, with five slices of bread, one-half serving of cereal, and one-half teaspoon a day of macaroni, noodles, or spaghetti; fourth in desserts other than fruit, with three cookies or one very large piece of cake daily, and about one-sixth of a piece of pie and one serving of other non-fruit desserts each day; fifth in vitamin supplements, chiefly cod liver oil, with a very small average of other supplements; and no soft drinks.

German - The average German child met the standard dietary intake recommended for four nutrients; which were phosphorus,

iron, vitamin A (at the 5000 I. U. level) and vitamin C. His dietary intake rated as high as any of the other groups in this respect. His response to the nutritional tests was third in the rank order of average scores, when the order of all of the scores for the various nutrition tests was averaged.

The average German child was fourth in income, sixth in education, and third in physical home, which placed him among the higher ranking groups for these points. He was sixth in visual physical examination; seventh in dental rating; sixth in blood hemoglobin; second and sixth, respectively, for sitting and standing plantar contact; second for both standing and sitting slump; first in weight status, since he came within the \pm 10 pound range considered normal; second in darkness adaptation, which may be expected since he averaged the highest in use of cod liver oil; second in capillary wall strength; seventh in skeletal maturity age; and fifth in skeletal mineral density rating.

For average intake of food nutrients, the German child was eighth in the use of milk, using a little more than a cup each day; fifth in potatoes, which represented one medium to large serving daily; fifth in tomatoes and citrus fruits, or a little over one-fourth of a cup daily; third in leafy, green, and yellow vegetables - close to one-half of a daily serving;

first in use of dried beans, peas, and nuts, averaging a little over a tablespoon of this food daily; eleventh in other vegetables and fruits, approximately three-fourths of a serving daily; fifteenth, or lowest for the groups, in the use of eggs, which averaged too small an amount to measure; fourth in the use of meat, (which included lean meat, poultry, fish, and glandular meat) a generous serving daily; sixth in use of liver, included above, and third in the use of fish; sixth in use of butter, about one and one-half tablespoons daily; fifth in the use of other fats, which was less than one-half a teaspoonful; first (the English child was the same and also shared first place) in the use of sugar; fourth in cereals - a little more than six slices of bread (this made him the highest bread consumer in the group), a small half-serving of cereal - about one teaspoonful of macaroni, and spaghetti; first in the use of desserts other than fruit, with a large serving of dessert other than fruit daily; and he was highest in vitamin concentrates, averaging about 15 grams daily of cod liver oil.

It is interesting to compare the average German child of this study - chiefly from a medium-to-low income family of skilled or unskilled laborers - with that of the German child of similar socio-economic status in pre-war Germany. Tyszka (15) has studied the diet of the German working man's family as compared to that of the working man's family in

America. In a study of the dietary habits of 100 American factory worker's families in Detroit and 896 German worker's families in Germany, he found that the American families were consuming more beef, mutton, eggs, milk, butter, vegetables (except potatoes), fruits and cereals than the worker's families in Germany. The German families, were consuming more pork, sausage, cheap cheese, bread (except wheaten bread), and potatoes. He reported that the American diet was more adequate in food value and variety for similar incomes than was the German dietary.

In the present study, the German child was found to have a variety of the foods mentioned by Tyszka as consumed by the average working man's family in America. The average German child in this study was better in many ways than the average American child in the study. From this it seems that the German families are making a good dietary adjustment when coming to this country, although much remains to be done to get them to provide diets for their families which will place the children in optimum nutritional status in all respects.

Irish - The Irish child had a dietary intake adequate in four nutrients, phosphorus, iron, vitamin A, (by the lower standard) and vitamin C. He was sixth in the over-all average of the order of scores for all of the nutrition tests. The average Irish family in the study ranked fifth in income; third in education; and fourth in physical home. The average Irish child was third in the medical physical examination;

seventh in the dental examination; sixth in hemoglobin; first and fourth, respectively, in sitting and standing plantar contact; second and tenth, respectively, in standing and sitting slump; second in weight, being slightly overweight according to the standards used in this study; fourteenth in the dark adaptation test (this might seem surprising in view of the fact that the average vitamin A intake - by the standard of 5000 International Units - was adequate. Most of the vitamin A intake was as carotene, however, and according to Mack and Sanders (5), a mixed diet of the type used here is not adequate for good darkness adaptation); second in capillary wall strength; ninth in skeletal maturity age; and seventh in mineral density.

The Irish child was fifth in the use of milk consuming a little less than a cup and one-fourth daily; third in potato intake, eating an average of a large-sized serving, daily; fourth in use of tomatoes and citrus fruits, with an average portion of this type of food of about one-third of a portion a day; eighth in the use of leafy, green, and yellow vegetables - a little less than one-half of a serving daily; sixth in the use of dried beans, peas, and nuts, with about one-half of a tablespoon daily; fifth in other vegetables and fruits, with a medium-sized daily serving of one vegetable or fruit except those in special categories; fourth in eggs, with a little over one-third of an egg, daily; sixth in the use of meat, averaging a large serving daily (this meat

consumed included liver and fish, in which he was eighth and fourth, respectively, in their use); first in the use of butter, with a consumption of nearly two tablespoons of this food daily; second in the use of sugar, with quantities almost the same as those consumed by the English and German; third in cereals, of which bread was the main cereal product - with about six slices daily; seventh in use of non-fruit desserts, his daily average being a medium piece of cake or a very small serving of desserts other than fruit daily; and eighth in use of vitamin supplements.

Italian - The Italian child had the lowest over-all rating for response to nutritional tests of any of the national or racial groups. His dietary consumption was adequate, according to the standards recommended by the National Research Council, only in vitamin C, although it was just below adequacy in iron. This generally low average nutrient consumption was undoubtedly the reason for his low nutritional status.

The Italian families in the study averaged sixth in family income, eighth in family education, and fifth in physical home rating. This socio-economic rating was not solely responsible for the low dietary standards and poor nutritive state of the average Italian child under consideration.

The Italian child was sixth in medical physical examination rating; sixth in dental rating; ninth in hemoglobin, which may result from his lower intake of iron than most of

the other groups; second and seventh in the sitting and standing plantar contact tests, respectively; third and twelfth in standing and sitting slump, respectively; first in weight status, since he came within the \pm 10 pound range according to the standards used; fifteenth in darkness adaptation, which could be expected from the low intake of vitamin A; second in capillary wall strength, which was one of his highest tests, (vitamin C was the only adequate nutrient in his dietary); tenth in skeletal maturity age; and seventh in skeletal mineral density.

The Italian child was fifteenth in milk intake, about one cup daily; sixteenth in potatoes, (a very small potato daily) which is the lowest for any in the whole group; thirteenth in tomatoes and citrus fruits, with a minute fraction of a cup daily; ninth in green, leafy, and yellow vegetables - less than one-half of a serving daily); eighth in use of dried peas, beans, and nuts; tenth in other vegetables and fruits (a small serving each day on the average); second in eggs, with slightly less than one-half an egg daily; thirteenth in meat, with a small serving daily; tenth in liver, with a small fraction of a serving a day; eleventh in fish; fourteenth in butter (about two-thirds of a tablespoon daily); tenth in other fats; twelfth in sugar (with a fraction of a teaspoon daily; fourteenth in cereals, with about four slices of bread, one-sixth serving of other cereals, and a little over a tablespoonful daily of macaroni, noodles, or spaghetti;

sixteenth in non-fruit desserts (a very small serving daily); and second in vitamin concentrates, all of which was cod liver oil.

Jewish - The Jewish child was second in the average of his ranks for over-all nutritional status. His intake of nutrients was adequate in iron, vitamin A (by the low standard) and vitamin C. The Jewish family was first in income, first in education, and second in physical home. This placed them highest in socio-economic rating for any of the groups, although it must be remembered that all groups in the study were all in the lower socio-economic groups.

The Jewish child was first in physical examination rating by a pediatrician; second in dental rating (only the Negroes rated higher); second in hemoglobin; fifth and eighth in sitting and standing plantar contact, respectively; second and tenth in standing and sitting slump, respectively; eighth in weight status, which was the poorest of any in the study - the reason for the low rating was a high incidence of over-weight; third in darkness adaptation; second in capillary wall strength; and second in skeletal maturity and skeletal mineral density.

The Jewish child was fourth in milk intake, with approximately a cup and one-half daily; eighth in potato consumption, with one medium to small potato, daily; first in tomatoes and citrus fruits, with the equivalent of more than one-half cup each day; seventh in leafy, green, and yellow vegetables,

with about one-half of a daily serving; twelfth in dried beans, peas, and nuts (with only slightly less than a teaspoonful); second in other vegetables and fruits, with two medium servings daily, of which fruit was used more frequently than vegetables; first in eggs, with more than one-half an egg on the average, daily; fourteenth in meat with about one medium daily serving (including liver and fish); first in liver, with about a teaspoonful, daily; first in fish, with a very small serving daily; thirteenth in butter, with less than a tablespoon daily; eighth in other fats; fourteenth in sugar; twelfth in cereals, with slightly more than four slices of bread a day, slightly over one-half of a serving of cereal, and about one-half of a tablespoon of macaroni; third in non-fruit desserts, with about one-third of a piece of pie and a small serving of cake or cookies daily; and ninth in vitamin supplements, consisting entirely of cod liver oil, with an average of 0.1 gram daily.

Lithuanian - The Lithuanian child rated twelfth in the over-all average ranking of the nutritional status scores, with exactly the same average ranking as the average American. His dietary intake was adequate only in the nutrients iron and vitamin C.

The Lithuanian family was seventh in income; ninth in education and fourth in physical home. The Lithuanian child was seventh in the medical examination rating; tenth in dental rating; thirteenth in hemoglobin, (all of the hemoglobin

values were high and in a close range with respect to each other); third and fifth in sitting and standing plantar contact, respectively; first and fourth in standing and sitting slump, respectively; fourth in weight, or just over the correct weight for the age, sex, height, and iliac width of the \pm 10 pound range; tenth in darkness adaptation; third in capillary wall strength; and fifth both in skeletal maturity, and in skeletal mineral density.

The Lithuanian child was seventh in milk intake, with approximately a cup and one-fourth, daily; fifteenth in potatoes, a small serving daily; fourteenth in tomatoes and citrus fruits, with the equivalent of a small fraction of a cup of tomato or orange juice, daily; thirteenth in green, leafy, and yellow vegetables (with less than one-half of an average daily serving); fourteenth in dried peas, beans, and nuts, with a very small fraction of a teaspoonful daily, on the average; twelfth in other vegetables and fruits (over one-half of a serving daily); tenth in eggs (about one-third of an egg a day, on the average); seventh in meat - one good serving daily, on the average, including liver and fish, in the former of which he was ninth and in the latter second in average consumption; twelfth in butter, with a little less than one tablespoonful, daily; tenth in other fats; sixth in sugar; eleventh in cereals, with about five slices of bread, a small serving of cereal, and one-half of a tablespoonful of macaroni; twelfth in desserts, which include more

cake and cookies than any other dessert; and seventh in vitamin supplements, averaging 0.5 gram of cod liver oil daily.

Polish - The Polish child rated ninth among the national and racial groups, in the average of rank order ratings with respect to the nutritional tests.

His dietary intake of the food nutrients was adequate only in iron.

The Polish family rating was eighth for income, eighth for education, and sixth for physical home. The average Polish child ranked sixth in visual physical examination; eighth in dental rating; twelfth in hemoglobin; seventh and second in sitting and standing plantar contact, respectively; second and eighth in standing and sitting slump, respectively; first in weight (along with several other of the average children), since he was within the \pm 10 pound range according to the standards of this study; third in darkness adaptation rating; second in capillary wall strength; tenth and sixth for skeletal maturity and mineral density, respectively.

The Polish child was thirteenth with respect to milk intake; ninth in potatoes, with one medium-sized potato daily on the average; eighth in tomatoes and citrus fruits, averaging less than the equivalent of one-fourth of a cup of juices of these products, daily; tenth in green, leafy, and yellow vegetables - less than one-half of a serving; eleventh in dried beans, peas, and nuts; only about one-half of a tablespoon daily; seventh in other vegetables and fruits;

roughly a medium serving daily; fifth in eggs, a little more than one-third of an egg, daily; eighth in lean meats, a good serving daily which includes liver and fish, in which he was third and fifth, respectively among the different children; seventh in use of butter, with about one and one-half table-spoonfuls; ninth in other fats; eighth in sugar; seventh in cereals, with more than six slices of bread, a small dish of cereal, and about one-half teaspoonful of macaroni; sixth in non-fruit desserts, which included more cake and cookies than pie and other desserts, with a small serving of cake or cookies and about a tenth of a piece of pie, on the average; and sixth in vitamin supplements, this being cod liver oil solely and averaging 0.6 gram.

Russian - The average Russian child ranked thirteenth in the average of scores based on rank order of all of the tests. The American Negro had the same over-all ranking - and the two were next to the lowest of all of the racial and national groups; only the Italian were lower.

The Russian child's food intake was adequate only in iron and in vitamin C, according to the allowances recommended by the National Research Council.

The Russian family rated eighth in income and education, and sixth in physical home. Thus these families were midway in socio-economic rating with respect to the various racial and national groups.

The Russian child was seventh in physical examination

rating; twelfth in dental examination and eighth in hemoglobin; fifth and second for sitting and standing plantar contact, respectively; and second and ninth for standing and sitting slump, respectively; first in weight, coming within the ± 10 per cent. range; seventh in darkness adaptation rating; fourth in capillary wall strength; and sixth, both in skeletal maturity and in mineral density.

The Russian child was sixteenth in milk intake, with about seven-eighths of a cup daily, on the average, the lowest for any of the groups; thirteenth in potatoes, with a small to medium-sized potato, daily; twelfth in tomatoes and citrus fruits; fifth in green, leafy, and yellow vegetables; seventh in dried beans, peas, and nuts; eighth in other vegetables and fruits; sixth in eggs; tenth in lean meat, which included liver, poultry and fish, in which he rated sixth and thirteenth for liver and fish, respectively; fifth for butter; sixth for other fats; eleventh for sugar; thirteenth for cereals, which included about five slices of bread, practically no cereal, and about three-fourths of a tablespoon of macaroni or related cereal foods; fourteenth in desserts such as pies, cakes and other desserts excluding fruits; and third in vitamin concentrates, with an average of 1.5 grams of cod liver oil daily.

Slovak - The Slovak child was tenth in the over-all ranking of the groups for their nutrition status. His dietary intake was adequate only in vitamin A (by the low standard), although

it was almost adequate in iron.

The Slovak family rated sixth in income and eighth in education and physical home.

The Slovak child was fifth in medical physical examination; eleventh in dental examination; fourth in hemoglobin; sixth and seventh in sitting and standing plantar contact, respectively; second and fifth in standing and sitting slump, respectively; fifth in weight; fifth in darkness adaptation; second in capillary wall strength; thirteenth in skeletal maturity; and third in skeletal mineral density.

The Slovak child was fourteenth in milk intake, with little more than half of a cup, daily; eleventh in potato consumption, with a medium serving, daily; eleventh for green, leafy, and yellow vegetables, with less than one-half of a serving daily; tenth for dried beans, peas and nuts; fifteenth for other vegetables and fruits; seventh for eggs, with a little more than one-third of an egg daily; fifteenth in meat, which averaged a medium-sized serving, including liver and fish, in which he ranked fifth and ninth, respectively; ninth for butter; tenth for other fats; fifth for sugar; fifteenth for cereals, the average daily intake of which consisted of approximately four slices of white bread, a small dish of cereal, and practically no macaroni pastes; tenth for non-fruit desserts, with a very small piece of cake or a small cookie and about a fourth of a piece of pie, daily. No vitamin concentrates were included for the average Slovak child.

Syrian - The Syrian child was fourth in the over-all ranking on the basis of the nutritional status tests.

His food nutrient intake was adequate in iron, vitamin A (low standard), and vitamin C. This was higher in the number of adequate nutrients than many of the other groups in the study; no group had adequate intake of more than four nutrients.

The Syrian family was fifth in income, seventh in education, and fourth in physical home rating.

The Syrian child was fifth in physical examination rating; fifth in dental rating; eleventh in hemoglobin; fourth and ninth for sitting and standing plantar contact, respectively; second and third for standing and sitting slump, respectively; sixth in weight status (the third highest group for amount of over-weight); sixth in darkness adaptation rating; fifth in capillary wall strength; first in skeletal maturity - the highest group in the study; and fourth in skeletal mineral density.

The Syrian child was twelfth in milk intake, with only approximately a cup a day; twelfth in potatoes, with a medium to small serving, daily; tenth in tomatoes and citrus fruits, with the equivalent of about one-fourth of a cup; twelfth in green, leafy, and yellow vegetables, with less than one-half of an average serving, daily; seventh in dried beans, peas, and nuts, with approximately a tablespoonful a day; first in other fruits and vegetables, with two good-sized servings a

day, of which about three-fourths was fruit and dried fruit and the rest vegetables; fourteenth in eggs; third in meats, which included lean meat, poultry, fish, and glandular organs (one large serving of some kind of meat, daily); thirteenth and seventh in liver and fish, respectively; third in butter, a tablespoon and one-half, daily; eighth in other fats; third in sugar; first in cereals for the whole group, using slightly more than six slices of bread daily (more of which was whole wheat than any other group), a small serving of cereal and one-third of a serving of macaroni pastes, on the average, which was more of this food than was used by any other group in the study; second in non-fruit desserts, which included a large amount of pie, almost two-thirds of a piece daily. The Syrian child had no vitamin supplement, such as cod liver oil.

Welsh - The Welsh child was eighth in the over-all ranking of the various groups for their nutritional status. His dietary intake was adequate in three nutrients - phosphorus, iron, and vitamin C.

The Welsh family was second in income, fifth in education and third in physical home.

The Welsh child was sixth in physical examination rating; seventh in dental examination rating; fourteenth in hemoglobin; second and first in sitting and standing plantar contact, respectively - very high ratings when compared with the other groups; first and second in standing and sitting slump, res-

pectively, also highest for the groups; first for weight, within the \pm 10 per cent. range; fifth in darkness adaptation; third in capillary wall strength; fourteenth in skeletal maturity - the lowest group in the study; and tenth in mineral density.

The Welsh child was first in milk intake, with nearly one and one-third cups daily - still an inadequate amount, as shown by his low skeletal status; seventh in potatoes, with one medium to small potato daily; ninth in tomatoes and citrus fruits; sixteenth in leafy, green, and yellow vegetables, (about one-third of a serving, which is lowest for any of the groups); fourth for dried peas, beans, and nuts; fourteenth for other vegetables and fruits; third for eggs; twelfth for meats, which included lean meat, poultry, fish and glandular organs; seventh and sixth for liver and fish, respectively; tenth for butter; eighth for other fats; thirteenth for sugar; sixteenth for cereal, including about five slices of bread, a very little cereal, and a very little macaroni or related products; and eleventh for non-fruit desserts which included more cake and cookies than pies or other desserts. The Welsh child had no vitamin concentrates, such as cod liver oil, in his daily intake.

Negro - The average Negro child in this study met only two of the standards of nutrient intake, namely - iron and

vitamin A on the lower of the two standards. He had the lowest family income and physical home, but ranked fifth in family education. He ranked third in physical score as assigned by a pediatrician; first in dental rating; fifteenth in hemoglobin; first and tenth in sitting and standing plantar contact, respectively; fifth and thirteenth, respectively, in standing and sitting slump; first in weight status because of averaging neither under or over-weight; eighth in darkness adaptation; first in capillary wall strength; twelfth in skeletal maturity and first in mineral density - a chaotic record of high and low values. The high dental status in spite of inadequate intakes of almost all of the nutrients gives further evidence of the fact that the exact inter-relationships between dental caries and nutrient intake have not yet been ascertained.

The Negro child averaged eleventh in milk consumption, with little over a cup a day; fourteenth in intake of potatoes, averaging about one small to medium potato a day, with a larger share of this being sweet potatoes than was the case with the other national and racial groups; fifteenth (next to lowest) in the use of tomatoes and citrus fruits, averaging about one-fifth cup daily; first in the consumption of leafy, green, and yellow vegetables, with slightly more than half a serving daily; fifth in the use of legumes, with an average of about two-thirds of a tablespoon a day; thirteenth with respect to other fruits and vegetables, with about one-half a serving daily;

thirteenth in the use of eggs, with slightly less than one-third of an egg a day; sixteenth (lowest) in the use of meats, including lean meat, poultry, fish, and glandular meat, but ninth in the consumption of liver and fourteenth in fish consumption (three-fourths of a serving of meat and one one-hundredths of a serving of liver a day, and about one-fiftieth of a serving of fish); eleventh in the use of butter (slightly under one tablespoon daily); fifth in the use of fats other than butter; ninth in the use of sugar (about one teaspoon daily); fifth in cereals, with about six slices of bread, one-half serving of cereal, and only about one-half teaspoon of macaroni, noodles, or spaghetti; fifteenth in the use of non-fruit desserts, with one-third of a piece of pie, one-half cookie or its equivalent in cake; and no vitamin supplements of any sort.

English-Welsh - The average English-Welsh child was fifth in the over-all ranking of the group for his nutritional status. His food intake was adequate in only one of the dietary essentials for which the National Research Council has set forth recommended allowances.

The average English-Welsh family was sixth in income, sixth in education and sixth in physical home ratings.

The average English-Welsh child was fifth in the physical examination rating; eleventh in dental rating; first in hemoglobin, in which respect the average Jewish child was a close second; first and eighth, respectively, in sitting and standing

plantar contact; second and sixth in standing and sitting slump, respectively; first in weight, since he was within the \pm 10 per cent. of the standard weight range; eleventh in darkness adaptation; third in capillary wall strength; fourth in skeletal maturity and seventh in skeletal mineral density.

The English-Welsh child was ninth in the use of milk; tenth in potatoes; eleventh in tomatoes and citrus fruits; fourth in green, leafy, and yellow vegetables; thirteenth in dried beans, peas, and nuts; ninth in other vegetables and fruits; ninth in lean meats, including lean meat, fish, poultry, and glandular meats, of which twelfth and eleventh was the rating for liver and fish, respectively; eighth for butter; fourth for other fats; ninth for sugar; tenth for cereals, which included about five slices of bread, one-half serving of cereal, and one-half a teaspoonful of macaroni pastes; and fifth in non-fruit desserts which were mainly cakes, cookies and pies. This child had no vitamin supplements, such as cod liver oil.

German-Irish - The German-Irish child was seventh in the over-all rankings for the group on the basis of the nutritional test response. His dietary intake was adequate in phosphorus, iron, vitamin A (by the low standard), and in vitamin C. This was as high a number of adequate nutrients as any group had in this study.

The German-Irish family was ninth in income; ninth in education; and second in physical home. It is interesting to note that the physical home rating was high in proportion to

the ratings for the education and income.

The German-Irish child was second in physical examination rating; third in dental rating; tenth in hemoglobin; third and eleventh in sitting and standing plantar contact, respectively; second and first in standing and sitting slump; respectively, showing here the least amount of slump during sitting for any group; seventh in weight; thirteenth in darkness adaptation rating; first in capillary wall strength; third in skeletal maturity; and ninth in skeletal mineral density.

The German-Irish child was third in the use of milk products, with between one cup and one and one-fourth cups; sixth in potato consumption, with two medium servings; sixth in tomatoes and citrus fruits, with a little more than one-fourth of a cup; fifteenth in green, leafy, and yellow vegetables; third in dried peas, beans, and nuts - about a tablespoonful daily; sixteenth in other fruits and vegetables, the lowest for all the group with a scant one-third of a serving; eleventh in eggs; second in meats, with close to one and one-half servings a day; fourth in liver; tenth in fish; sixth in butter (one and one-half tablespoons); eleventh in other fats; tenth in sugar (a good teaspoonful); sixth in cereals, which included five and one-half slices of bread (some of it whole grain bread), a half serving of cereal, and about two-thirds of a teaspoonful of macaroni pastes; and eighth in non-fruit desserts, most of which were cake and

cookies, a small serving daily, with a very small amount of pie and other desserts not including fruit.

Irish-German - The Irish-German child had the highest ranking of any national or racial group in the nutritional status scores. His dietary intake was adequate only in the three nutrients, iron, vitamin A (by the low standard), and vitamin C.

The Irish-German family was third in income, sixth in education, and third in physical home.

The Irish-German child was fifth in the physical examination rating; seventh in dental rating; third in hemoglobin; sixth and third for sitting and standing plantar contact, respectively; first and seventh for standing and sitting slump, respectively; first for weight, (since he was within the \pm 10 per cent. range); first for darkness adaptation; third for skeletal maturity; and sixth for skeletal mineral density.

The Irish-German child was sixth in consumption of milk; first in potatoes (two medium servings or one large serving daily); second in tomatoes and citrus fruit; fourteenth in green, leafy, and yellow vegetables; ninth in dried beans, peas, and nuts; sixth in other vegetables and fruits; eleventh in eggs; first in meat, with one large, and one medium serving daily including liver, poultry, fish and glandular organs, of which he was fourth in use of liver and twelfth in use of fish; second in the use of butter; first in the use of other

fats (with about one teaspoonful); seventh in use of sugar; second in the use of cereals, including a consumption of more bread than any other group, which was about six and one-half slices daily, a small serving of cereal and a little over one teaspoonful of macaroni pastes; and thirteenth in non-fruit desserts, which included on the average a very small piece of cake or a cookie and a small serving of another dessert other than fruit.

This Irish-German child had no vitamin concentrates such as cod liver oil added to the daily food intake.

In summarizing the comparison of the average child from each of the 16 groups considered in this part of the discussion, a graph has been prepared in which the average consumption by each group is shown. This is presented as Figure 45, page 172.

Key to Figure 45

Consumption of the Twelve Major Food Groups

- (1) Milk products (except butter).
- (2) Potatoes and sweet potatoes.
- (3) Tomatoes and citrus fruits.
- (4) Leafy, green, and yellow vegetables.
- (5) Dried beans, peas, and nuts.
- (6) Other vegetables and fruits, including dried fruits.
- (7) Eggs
- (8) Lean meat, poultry, fish, and glandular organs.
- (9) Flour, baked goods, and assorted cereals.
- (10) Fatty foods.
- (11) Sugar.
- (12) Vitamin supplements.

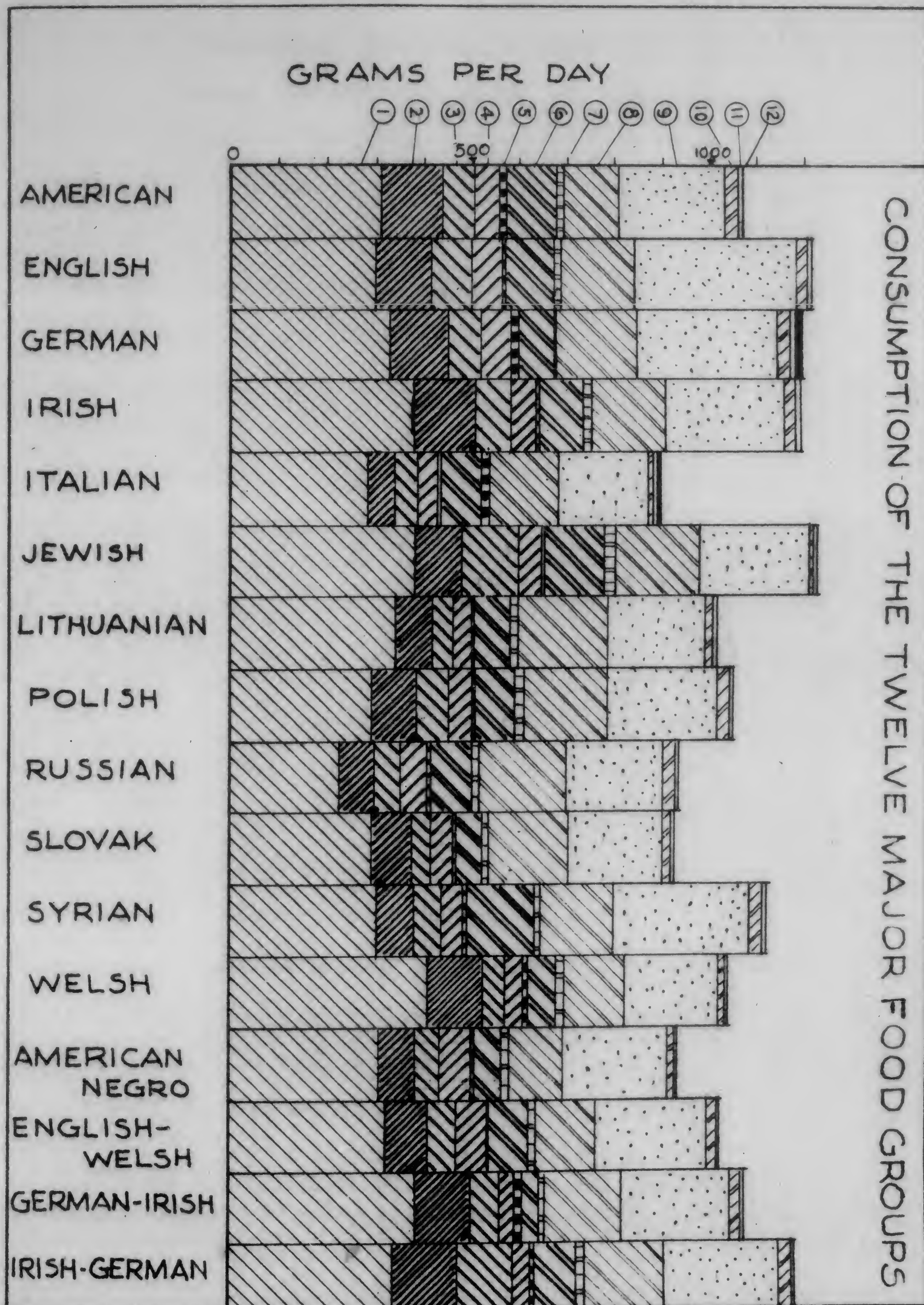


Figure 45 - Average Consumption of Twelve Major Food Groups

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- (8) Lean meat, poultry, fish, and glandular organs.
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- (10) Fatty foods.
- (11) Sugar.
- (12) Vitamin supplements.

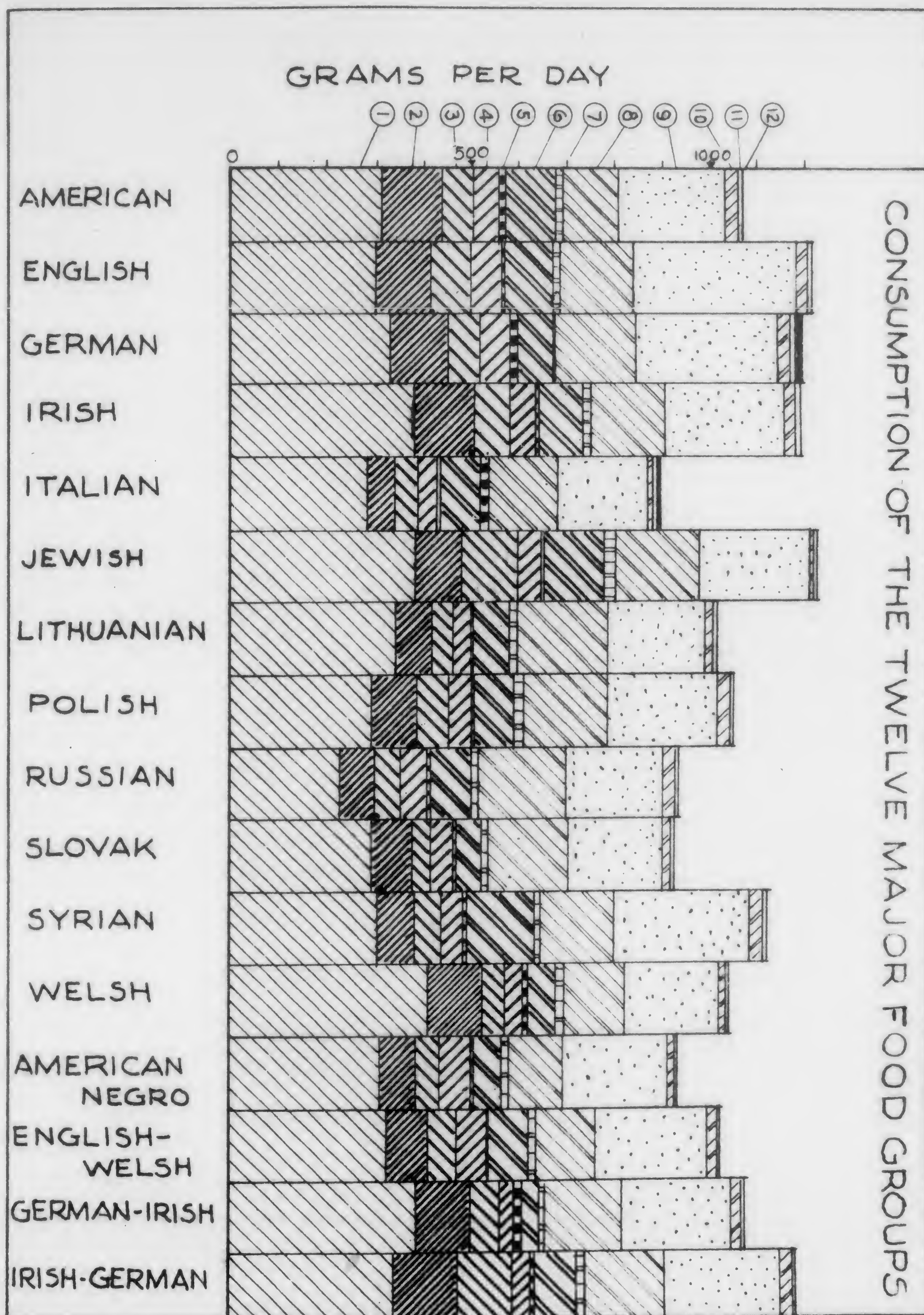


Figure 45 - Average Consumption of Twelve Major Food Groups

DISCUSSION OF FINDINGS CONCERNING ALL
RACIAL AND NATIONAL GROUPS IN THE STUDY

Children of the national and racial groups which totaled less than ten members to a group were studied for general dietary habits. There were 91 of these groups with members numbering from one to nine children. It was decided to determine whether or not the dietary habits of the families of mixed national descent, followed the dietary habits of the national or racial background of the mother, that of the father, or that of both.

The groups included were the following:

American	102* ¹
American-Austrian	1
American-Dutch	1
American-English	2
American-German	1
American-Irish	2
American-Polish	1
American-Slovak	1
American-Welsh	2
German-American	3
Scotch-American	1
Welsh-American	1

¹Those marked with the (*) were composed of 10 or more children and were included in the first part of the discussion.

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American-Irish	2
American-Polish	1
American-Slovak	1
American-Welsh	2
German-American	3
Scotch-American	1
Welsh-American	1

¹Those marked with the (*) were composed of 10 or more children and were included in the first part of the discussion.

Austrian	5
Austrian-Polish	1
American-Austrian	1
Dutch	9
Dutch-English	7
Dutch-German	5
Dutch-Irish	7
Dutch-Italian	1
Dutch-Polish	1
Dutch-Scotch	2
Dutch-Welsh	9
American-Dutch	1
English-Dutch	3
German-Dutch	3
Irish-Dutch	1
Russian-Dutch	1
Welsh-Dutch	1
English	29*
English-Dutch	3
English-German	7
English-Irish	4
English-Jewish	1
English-Welsh	10*
American-English	2
Dutch-English	7
German-English	4

Irish-English	4
Russian English	1
Swedish-English	1
Welsh-English	8
German	34*
German-American	3
German-Dutch	3
German-English	4
German-Greek	1
German-Irish	10*
German-Lithuanian	1
German-Polish	2
German-Scotch	3
German-Swedish	1
German-Welsh	7
American-German	1
Dutch-German	5
English-German	7
Irish-German	10*
Lithuanian-German	1
Polish-German	1
Russian-German	1
Slovak-German	2
Welsh-German	7
Greek	8
German-Greek	1

Polish-Greek	2
Slovak-Greek	1
Hungarian	1
Ukranian-Hungarian	1
Irish . . . . .	.65*
Irish-Dutch	1
Irish-English	3
Irish-German . . . . .	.10*
Irish-Jewish	1
Irish-Lithuanian	2
Irish-Polish	2
Irish-Scotch	1
Irish-Slovak	1
Irish-Swiss	1
Irish-Welsh	2
American-Irish	2
Dutch-Irish	7
English-Irish	4
German-Irish . . . . .	.10*
Polish-Irish	3
Russian-Irish	2
Scotch-Irish	2
Slovak-Irish	1
Welsh-Irish	1
Italian	61*
Italian-Polish	2

Bohemian-Italian	1
Dutch-Italian	2
Polish-Italian	2
Jewish	42*
English-Jewish	1
Irish-Jewish	1
Welsh-Jewish	1
Lithuanian	28*
Lithuanian-French	1
Lithuanian-German	1
Lithuanian-Polish	2
Lithuanian-Russian	1
Lithuanian-Slovak	1
German-Lithuanian	1
Irish-Lithuanian	2
Polish-Lithuanian	1
Russian-Lithuanian	1
Slovak-Lithuanian	2
Negro	14*
Polish	69*
Polish-French	1
Polish-German	1
Polish-Greek	2
Polish-Irish	3
Polish-Italian	2
Polish-Lithuanian	1

Polish-Mexican	2
Polish-Slovak	5
Polish-Ukranian	1
Polish-Welsh	1
American-Polish	1
Austrian-Polish	1
Dutch-Polish	1
German-Polish	2
Irish-Polish	1
Italian-Polish	1
Lithuanian-Polish	2
Russian-Polish	1
Slovak-Polish	7
Welsh-Polish	2
Russian	31*
Russian-Dutch	1
Russian-English	1
Russian-German	1
Russian-Irish	2
Russian-Lithuanian	1
Russian-Polish	1
Russian-Welsh	2
Lithuanian-Russian	1
Slovak-Russian	5
Welsh-Russian	1

Scotch	1
Scotch-American	1
Scotch-Irish	2
Dutch-Scotch	2
German-Scotch	3
Irish-Scotch	1
Serbian	1
Slovak	17*
Slovak-German	2
Slovak-Greek	1
Slovak-Irish	1
Slovak-Lithuanian	2
Slovak-Polish	7
Slovak-Russian	5
Slovak-Welsh	2
American-Slovak	1
Irish-Slovak	1
Lithuanian-Slovak	1
Polish-Slovak	5
Welsh-Slovak	1
Swedish	1
Swedish-English	1
German-Swedish	1
Syrian	32 *
Ukranian	9
Ukranian-Hungarian	1

Polish-Ukranian	1
Welsh . . . . .	.17 *
Welsh-American	1
Welsh-Dutch	1
Welsh-English	8
Welsh-German	7
Welsh-Irish	1
Welsh-Jewish	1
Welsh-Phillipino	1
Welsh-Polish	2
Welsh-Russian	1
Welsh-Slovak	1
American-Welsh	2
Dutch-Welsh	9
English-Welsh	10
German-Welsh	7
Irish-Welsh	2
Polish-Welsh	1
Russian-Welsh	2
Slovak-Welsh	2

The nutritional test ratings for visual physical examination, dental examination, hemoglobin, Pryor weight status, biophotometer bright light rating, total integration, skeletal maturity age, and mineral density were averaged for each mixed national and racial group.

Averages of all of the nutrition ratings of the children,

who had like maternal or like paternal national background, were compared to the average nutrition test ratings for the children of the same nationality on both sides of the home, in order to ascertain whether the ratings were the same, higher, or lower.

The physical home ratings showed little difference among the mixed national or racial groups, in comparison with the ratings of those whose parents both had the same racial background.

The nutrition test comparisons, however, presented a different situation. The children of mixed national or racial background showed that a large percentage had a nutritional test rating higher than that of the children with both parents matching one or the other of the parents of the mixed group. This was evident in comparing the groups with both parents of the same national or racial background either with the group of like maternal or of like paternal parentage. This may be explained by the fact that parents from different national or racial backgrounds brought together a greater variety of food likes and food uses in establishing their homes than was the case when both parents were of the same descent. In this case, a wider variety of foods were used daily, and consequently more opportunity was given for meeting the needed allowances of all nutrients. This supply of a wider variety of essential nutrients offers the most plausible explanation of the higher

response to the nutrition tests, in general, by the children of mixed parentage rather than of parents of the same national or racial descent.

The consumption of the 12 major groups of foods by the children of mixed parentage, in comparison with those having both parents of the same national or racial extraction (whether the mother or father of the former was the same as the descent of the parents in the latter groups) matched in major aspects only in about 10 per cent. of the cases. This shows that racial or national food habits tend to be lost when inter-marriages between those of different descents take place. This fact is likewise related to the dissimilarity in results of the nutritional status tests, where both parents were of the same descent, in comparison with those in which the two parents were of dissimilar descent. It seems evident from the data that, when two parents come from the same country, or from a race like the Jewish, which retains its identity and habits to a considerable degree after centuries of departure from the land of their forefathers, the old habits cling even in a new land. This places a limitation upon the food varieties utilized, since the new country may not offer the exact foods to which the two parents have become accustomed. When the parents have different national or racial origins, however, there is brought into the family a larger total group of food habits, resulting, as seen from the data of this study, in wider food choices, a greater opportunity to obtain the needed nutrients,

and in better nutritional status of the children.

The wide variety of foods available in this country makes it possible for the same consumption of nutrients to be obtained with widely varying food choices. Take for example the average protein intake of the English, German, and Syrian children. This was, respectively, 57.4, 57.6, and 57.3 grams per day for the groups in the order mentioned. The considerable variety in quantities of the major groups of foods making the highest contribution of this nutrient are shown as follows in Table VII.

TABLE VII
COMPARATIVE AMOUNTS OF THE FOUR CHIEF PROTEIN-GIVING
FOODS IN THE DIETS OF THREE GROUPS OF CHILDREN OF
APPROXIMATELY EQUIVALENT PROTEIN INTAKE

Group of Children	English	German	Syrian
Daily Protein Intake (grams)	57.4	57.6	57.3
Milk Consumption (grams)	385.5	316.9	296.0
Meat			
<u>Muscle Meats</u>	97.9	113.3	104.9
<u>Glandular Meats</u>	4.0	0.6	2.3
<u>Poultry</u>	2.8	9.0	5.4
<u>Fish</u>	5.5	6.1	9.6
<u>Meat Soup</u>	25.9	24.7	53.6
Eggs	17.3	2.0	13.0
Legumes	7.6	1.3	7.7

The national and racial groups which averaged the highest and the lowest, respectively, in the consumption of some of the nutrients - take for example protein, iron, and vitamin C - illustrate another influence of a restricted as opposed to a widely varying dietary. The rank orders of intake of the

chief food sources of each of these nutrients have been shown in Table VIII for the groups of children having the highest and the lowest intakes of these respective nutrients.

TABLE VIII

A COMPARISON OF THE ORDER OF INTAKE OF CERTAIN FOODS FOR
GROUPS OF CHILDREN HIGHEST AND LOWEST IN INTAKE
OF THREE NUTRIENTS

Three Groups Highest in Protein Intake	Milk	Meat	Eggs	Legumes		
English	2*	5	8	7		
German	8	4	15	1		
Syrian	12	3	14	7		
Three Groups Lowest in Protein Intake						
Slovak	14	15	7	10		
American Negro	11	16	13	5		
Russian	16	10	6	7		
Three Groups Highest in Iron Intake	Green, Leafy, Yellow Vege- tables	Other Vege- tables and Fruits	Meat	Liver	Eggs	Cereal
German-Irish	15	16	2	4	11	6
English	2	4	5	2	8	9
German	3	11	4	6	15	4
Three Groups Lowest in Iron Intake						
Slovak	11	15	15	10	7	15
Italian	9	10	13	6	2	14
Russian	5	8	10	5	6	13
Three Groups Highest in Vitamin C Intake	Potatoes	Tomatoes and Cit- rus Fruits	Green, Leafy, Yellow Vege- tables	Other Fruits and Vegetables		
Jewish	8	1	7	2		
English	2	3	2	4		
Irish-German	6	2	14	6		
Three Groups Lowest in Vitamin C Intake						
English-Welsh	9	11	4	9		
American Negro	11	15	1	13		
Polish	13	8	10	7		

Footnote, page 186

- * The numbers indicate the rank order of intake for all the racial and national groups with number one representing the highest intake of any food.

It is noted here that the groups higher in the consumption of a food nutrient had higher rankings (lower numbers) for intake of several of the foods in the table. The groups lower in the consumption of a food group, on the other hand, had poorer rankings in a large proportion of the foods which make notable contributions to this nutrient. Hence, in the better dietaries, a larger consumption of more kinds of foods pertained.

Throughout the study, regardless of racial or national background, the peculiar diets of many of the children became increasingly disturbing. This led to a feeling that alarmingly poor choices of foods for children transcended racial or national traditions, and pointed for the need for nutrition education in all groups. The following are two random selections of bad child dietaries - all too common throughout the study:

CHILD ONE (FEMALE AGE 10 YEARS)

<u>Breakfast</u>	<u>Lunch</u>	<u>Dinner</u>
Monday		
1 cup coffee	1 serving tomatoes	1 serving tomatoes
1 pat butter	1 piece meat	1 piece meat
1 slice bread	2 pigs in blankets	1 pig in blanket
1 slice bacon	1 serving potatoes	1 serving potatoes
	1 piece candy	1 piece candy
Tuesday		
1 cup coffee	1 cup cocoa	1 serving tomatoes
1 pat butter	1 egg sandwich	1 piece of meat
1 slice bread		1 serving potatoes

Wednesday

1 cup coffee	1 cup coffee	1 dish tomato soup
1 pat butter	1 egg sandwich	1 piece meat
1 slice bread		1 serving cabbage
1 slice bacon		

Thursday

1 cup coffee	1 serving noodles	1 piece fish
1 slice bread	with milk	1 serv. string beans
1 pat butter	1 bun	in milk
		1 cup coffee
		1 apple butter bread

Friday

1 cup coffee	1 cup coffee	1 dish vegetable soup
1 apple	1 piece cake	1 dish cucumbers
1 slice bread	1 bread and butter	1 piece meat
1 pat butter	sandwich	1 serving potatoes
		1 serving cabbage
		1 serving carrots

Saturday

1 glass milk	1 plain sandwich	1 piece salmon
1 slice toast	1 cup coffee	1 butter bread
		1 glass milk

Sunday

1 glass milk	1 plain sandwich	1 hot dog
1 piece toast	1 dish ice cream	1 dish peaches
	1 orange	1 popsickle
		4 pretzels

CHILD II (BOY AGE 11 YEARS)

<u>Breakfast</u>	<u>Lunch</u>	<u>Dinner</u>
Monday		
1 bun	1 tomato sandwich	1½ hot dogs
1 cup coffee	1 glass beer	2 boiled potatoes
	1 glass water	1 glass water
	1 orange	1 banana
		1 glass hot chocolate
Tuesday		
1 cup coffee	2 egg sandwiches	3 boiled potatoes
1 piece cake	1 cup tea	1 cup coffee
	1 orange	1 spiced meat sandwich with lettuce
	1 piece white cake	1 serving baked beans
Wednesday		
2 buns	1 bowl noodle soup	1 bowl vegetable soup
1 cup tea	1 serving mashed potatoes	1 piece beef
		1 cup tea
	2 tablespoons carrots	1 piece white cake
	1 dish cucumbers	
	1 glass tea	
Thursday		
1 fried egg	1 serving mashed potatoes	1 piece beef
1 cup coffee	1 piece sausage	1 serving mashed potatoes

Thursday continued

1 piece white cake	1 serving carrots
1 glass water	1 dish cucumbers
	1 cup coffee
	1 piece white cake
	1 orange

Friday

1 bun	1 serving salmon	1 serving salmon
1 cup tea	1 serving mashed potatoes	1 serving mashed potatoes
	1 dish cucumbers	1 dish cucumbers
	1 cup coffee	1 cup coffee

Saturday

1 ripple wheat cereal	1 tomato sandwich	2 hamburgers
$\frac{1}{2}$ cup milk - 1 tsp. sugar	2 boiled potatoes	1 serving mashed potatoes
1 cup coffee	1 piece cake	1 piece apple pie
		1 piece candy

Sunday

6 crackers	1 bowl chicken soup	2 hamburgers
1 cup coffee	1 piece chicken	1 tomato salad
	1 serving mashed potatoes	1 glass of beer
	1 serving carrots	
	1 cup coffee	
	1 dish cucumbers	

These data illustrate the fact that the foods included as a unit for the meal show utter lack of meal planning, and that foods suitable for the age of child in question are not taken into consideration. For example, coffee and soft drinks too frequently replace milk and other foods in the meal; these cost money and make no nutrient contribution to the dietary.

As mentioned, it is evident from the low nutritional status ratings and the low nutrient dietary intake, that the children in all groups of this study need to improve their dietary habits.

It has been demonstrated that dietary habits of racial and national groups can be improved by the fact that children of mixed national groups are higher in response to the tests than children of pure national groups. The food habits of both groups have blended to make a better food source of nutrients. With this in mind, then the information needed by these groups is as follows:

1. Food additions which will improve present dietary habits.
2. Inclusion in the dietaries of various foods rich in the different essential nutrients and how to use or prepare them.
3. Choice and use of foods such as to make adequate and satisfying meals.

The needs illustrated by this report have been pointed out by the National Research Council, Committee on Food Habits (8),

and have been cited by this Committee as one of the major requisites of the present war emergency.

S U M M A R Y

This study is concerned with the dietary habits and the nutritional status by national and racial groups of 789 school children in an anthracite mining region of Pennsylvania.

The children represented 20 national background groups in which both parents were of the same descent, and 87 groups of mixed background.

The study includes the socio-economic rating of the children; the nutritional status as based on 12 nutrition tests; the dietary intake of the nine food nutrients and the food uses as based on the 12 major food classes.

The children on the average were from the lower socio-economic groups. The response to the nutrition tests showed them to be below average in many respects, regardless of national or racial descent.

The analysis of the intake of food nutrients showed inadequate consumption of most of these nutrients.

There were notable differences in the choices of foods between many of the racial and national groups in which both parents were of the same descent.

The mixed national background groups showed a higher rating for nutrition status than those of parents of the same descent; and the mixed groups did not entirely follow the dietary patterns of either parent.

The study shows a definite need for improvement of nutrition status of these children through an improved dietary intake, regardless of national or racial extraction.

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